Virginia Wildlife

OCTOBER 1981 $1.00

October 1981
Volume 42, Number 10

Virginia Wildlife

Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources

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Color separations by Graphic Technology, Ft. Lauderdale
Printing by The William Byrd Press, Richmond

Virginia Wildlife (ISSN 0042 6792) is published monthly by the Education Division of the Virginia Commission of Game and Inland Fisheries, P. O. Box 11104, 4010 West Broad Street, Richmond, Virginia 23230. Subscription rates: one year, $5, three years, $12.50. Submission guidelines for free lance work available upon request. The Commission accepts no responsibility for unsolicited manuscripts, photographs, or artwork. Permission to reprint material from *Virginia Wildlife* is granted provided credit is given; clearance must also be obtained from the contributing writer and/or artist. Second class postage paid at Richmond, Virginia

Observations, conclusions, and opinions expressed in *Virginia Wildlife* are those of the author and do not necessarily reflect those of the members or staff of the Commission of Game and Inland Fisheries.

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Maple leaves by Kenneth Lewis, Jr. Staten Island, New York

Letters

A TRIBUTE

The July 1981 issue of your magazine carried an article, "No Easy Target," by Edward J. Harris. This was not his first contribution to *Virginia Wildlife*, and people in this area particularly enjoyed reading what he wrote.

This letter is to let you know something of which you may already be aware—Mr. Harris died early this year. He was an interesting person, having grown up in Clifton Forge, joining the army while quite young, and ending his military career as a lieutenant colonel. He loved the outdoors, as his writing for your magazine clearly indicates.

My husband and I, our son, our son-in-law, and now a teen-aged grandson, all read and enjoy *Virginia Wildlife*.

Elizabeth Payne
Clifton Forge

CALENDAR DEER

Can you tell me where the picture on the back cover of the July issue of *Virginia Wildlife* was taken? It appears to be just beyond Big Meadows on the Rapidan fire road in Shenandoah National Park.

William E. Luck
Richmond

You have a good eye. We called the photographer, Gary Gaston, in Lake Charles, Louisiana and he said that's exactly where the photo was taken. The photograph you mention is on the cover of the 1981-82 Sportsman's Calendar.—Assistant Editor

SOUTHWEST FAN

Many thanks for your fine magazine. I think it is the best. I enjoy articles and reports of southwest Virginia. I would like to see more on trapping.

William Barker
Wise

We are always looking for good stories from your area. For some reason, we don't seem to get as many as we'd like. Look for more trapping articles in the next few months.—Assistant Editor

CREDIT WHERE CREDIT IS DUE

In our August issue, we incorrectly credited two photos. The cover photo was taken not by Karl Maslowski, but by his son, Steve Maslowski, also of Cincinnati. Talent runs in the family.

The photo on page 25 was taken by Bob Gooch, not by Pete Elkins. Bob is a frequent contributor to *Virginia Wildlife* and has an article featured this month on page 4.

Our apologies to the photographers involved as well as to our readers.—Assistant Editor

Editorial

TO HELP A NEIGHBOR

Next spring, Virginians will be offered the opportunity to contribute a part of their state income tax refunds to a program designed to help non-game species in the Old Dominion. Our program will be somewhat similar to those being conducted in a dozen other states: Colorado, Idaho, Kansas, Kentucky, Minnesota, New Jersey, New Mexico, Oklahoma, Oregon, South Carolina, Utah, and West Virginia. Five more states have legislation pending that will enable them to start non-game programs.

For decades, the Commission of Game and Inland Fisheries has had programs that benefit game and non-game species. These programs have never been funded by general tax revenues from the state or the federal government. All funds have come from the sale of hunting, fishing and trapping licenses and from special federal taxes on guns, ammunition and fishing tackle. The funds for all wildlife protection and research are furnished by sportsmen.

There are literally hundreds of wildlife species in Virginia that are classified as "non-game" (creatures that are not hunted, trapped, or fished). Many of these, such as song birds, chipmunks and flying squirrels, are a delight to watch while others, such as shrews, mollusks, frogs and salamanders are seldom seen. All of these creatures are part of our outdoors and most make significant contributions which benefit man and other wildlife as they fulfill their ecological roles.

For years we have wanted to learn more about these species, to ensure their survival as more and more of their habitat is converted by the works of man. We want to explore ways to bring desirable wildlife, particularly song birds, closer to urban areas so that city dwellers can enjoy that good feeling that others experience when they simply see a beautiful bird.

We also want to provide Virginians with more opportunities to learn about wildlife by participating in programs conducted on our wildlife management areas, viewing films or slide presentations, or by providing more literature about wildlife for use in schools, clubs or by individuals. We want to provide more help to land owners and urban planners in developing habitats that will bring more wildlife into your neighborhood.

These programs cost money. The increased cost of maintaining the status quo means that we need help if we are going to expand our programs into the vast and mysterious area of non-game wildlife, and if we are going to expand our ongoing programs assisting in the recovery of the few endangered species we have in Virginia.

Fortunately, when you fill out your income tax forms for 1981, you will have an opportunity to help by indicating that part of your state tax refund be contributed to the non-game wildlife program. Simply write the amount in Block 20 of your state income tax form. If you have no refund coming, but would still like to contribute, you may send your contribution to the Commission of Game and Inland Fisheries, P.O. Box 11104, Richmond, Virginia 23230, Attention: Non-Game Fund. Your contributions may be deducted from your 1982 state and federal income taxes.

Don't miss this chance to help those hundreds of good neighbors who share this beautiful state with you.—*Jack Randolph*

Tiger Of the Weed Beds

The pickerel bites well, fights well, and does both all year 'round: it's a fish for all seasons.

by Bob Gooch

Several things about the chain pickerel make it a joy to fish for.

It is a lurking fish of the shallows and relatively easy to locate. Rarely is the pickerel found in deep water. And because it loves aquatic vegetation, good pickerel water is usually obvious. It is usually cooperative and seemingly always hungry. Finally, it is a fish for all seasons, active during the coldest weather as well as the warm.

A vicious fish by nature, its smashing strike at a surface lure is a real heart stopper. And hook stung, it becomes a tiger in the weed beds, cracking through the foam-flecked surface water, shaking its ugly snout, and tossing your lure right back at you.

A pickerel caught on the surface will fight on the surface—or above it. So I fish topwater lures when possible, and it seems to matter little whether I use baitcasting tackle and bass plugs, a fly rod and popping bugs, or spinning tackle.

The pickerel that hits a surface lure is likely to be reasonably near the top and in fairly shallow water. The bumbling angler will fail here. The fish has time to give the lure a critical look. A thin line or leader is helpful (the heavy leader of the pike fisherman is unnecessary, and a hindrance), and the angler must be cautious in his approach, making his cast from a safe distance.

I like the age-old bass fishing trick of dropping the lure on the water as lightly as possible, letting it rest while the ripples fade away, and then twitching it gently. Expect the water to explode when you execute that twitch—if indeed it does not do so earlier. If that does not produce, retrieve the lure slowly and irregularly. Make it imitate a wayward frog seeking safety, a crippled minnow on the surface, or even a small bird lost from a nest.

If surface lures do not work, go beneath the surface, but rarely far.

Again an age-old technique can be productive, that of working a patch of weeds with a spoon. Any kind of tackle will work. The pickerel will hit the baitcaster's big spoons, but spinning tackle which will handle the smaller spoons better. In the old days, even the fly fisherman cast tiny spoons on his flexible stick, but spinning tackle does it better. The fly fisherman is better off to concentrate on streamers, fine for pickerel.

The red and white spoon has probably caught more pickerel than all of the other color combinations put together. Yellows and oranges are also good, as are golds and silvers and the various natural finishes. A small strip of pork rind will make the spoon more attractive.

Unlike the retrieve of the surface lure, that of the spoon should be reasonably fast, but let the spoon flutter a bit. In the water it is never motionless. Even when sinking, it flutters seductively. Make it look like a crippled minnow.

Modern anglers take good pickerel on the minnow-shaped plugs such as the rebel and rapala. They can be twitched and fluttered on the surface, or run deep and made to resemble crippled or lost and frightened bait fish.

The fly rod man can have a ball fishing streamers. They also resemble minnows, and the pulsating kind such as the maribou is particularly good.

Give an old-timer a pail of lively minnows and a thermos of hot coffee and he will take pickerel through the coldest winter months—even through the ice. Most prefer a comfortable boat and open water, however. There is no other fishing quite like dunking live minnows on a bright winter or early spring day. Dress warmly and anchor your boat in likely pickerel water, run a thin hook through the back of a four-inch minnow and lower it kicking into the cold water. You will need a light sinker to keep it from swimming on the surface, and a bobber to keep it off of the bottom or out of the weeds. Most anglers like their minnows to swim just above the crowns of submerged grass or weeds.

Now pour yourself a cup of steaming coffee and settle back to enjoy it while the minnow does your work. The chances are you will not get half way through your coffee before the dancing bobber changes its beat, begins to bob frantically, and suddenly disappears. But stay calm, sip another swallow of coffee, and wait. Soon the bobber will pop back to the surface, dance about and disappear again. Now it is time for action! The pickerel takes the minnow sideways, and makes a short run before turning it around to swallow. On that second run the minnow should be well down in its throat.

There are other ways to fish live minnows such as casting them gently and retrieving them much as you would an artificial lure, but the bobber method is the most popular. Some anglers use the shad dart for minnow fishing. It provides the weight, a sharp hook, and color to attract the pickerel.

It is rarely necessary to risk hanging up by fishing inside the weed beds. The lurking pickerel likes to lie just within the rim of the weeds ready to dart out and grab a tasty meal. Work your lure parallel to the weeds.

In the absence of weeds look for debris, brushpiles, old bridge abutments, sloughs, backwater, the crowns of downed trees, or just about any place the lurking pickerel can hide and play its cat and mouse game.

Locate that kind of water and use the tactics described above and you may be forever glad that you did. □

Bob Gooch, one of Virginia's best-known outdoor writers, lives in Troy. He is a regular contributor to Virginia Wildlife *as well as other magazines and newspapers.*

by Joe Coggin

Wildlife Gets a Tax Break

Photographs by Leonard Lee Rue

This year, many Virginians may be glad to know that our bald eagle population appears to be increasing. Peregrine falcon introductions in the Old Dominion appear to be working and efforts to save the Delmarva fox squirrel from extinction are bearing fruit.

Until now, most of the funds required to work to save endangered species in Virginia were provided by the federal government, but it appears that in these days of fiscal austerity and budget cutting, these funds may no longer be available.

In addition to the few endangered species we have in Virginia there is great concern for increasing our understanding on the needs of all wildlife, particularly those species that are not hunted, trapped or fished for. For decades, sportsmen have provided funds through license sales for the study of game animals and fish, but no funds were forthcoming to support the study of nongame wildlife.

To be sure, nongame wildlife has not been totally ignored over the years. The acquisition of land by the Game Commission provided habitat for nongame as well as game species, and habitat improvement projects benefitted all wildlife, not just the game species. But a great deal more needs to be done.

Due to the foresight of the Virginia General Assembly, a bill was passed during the 1981 session which will permit Virginians the means to look after their endangered and nongame wildlife without being totally dependent upon federal funds. Taxpayers will be given the opportunity to contribute to the nongame and endangered wildlife program by designating part of their state income tax refund to be used for this purpose. Block 20 of

the tax form is where the taxpayer can indicate the amount, in whole dollars, he wishes to contribute. Individuals who do not receive a refund may contribute any amount they wish by sending a check, made payable to the Treasurer of Virginia, to the Commission of Game and Inland Fisheries, P.O. Box 11104, Richmond, Virginia 23230-1104, Attention: Nongame Fund. All contributions are deductible from the following year's federal and state income tax.

All funds received will be used by Virginia's wildlife researchers and managers to place greater emphasis upon endangered and nongame species.

In 1928, the General Assembly charged the Virginia Commission of Game and Inland Fisheries with the responsibility for overseeing all wildlife species. This has been accomplished to the limits of the agency's resources. With the assistance of funds received from this new tax check-off system, the Game Commission will be able to place much greater emphasis upon nongame wildlife. These funds will provide the mechanism for an integrated program which considers the relationships between all wildlife species and their habitats.

The goal of Virginia's wildlife program is to maintain a proper balance of wildlife populations and wildlife habitat and to provide maximum opportunity for their wise use and enjoyment.

This goal does not distinguish between game and nongame species because it is inevitable that habitat management will affect both categories at once. Therefore, both game and nongame programs will be combined into a single program and all aspects of the ecosystem or wildlife community will be considered when wildlife management programs are planned and implemented.

In the past, emphasis has been on game species because all wildlife programs were funded by sportsmen through the sale of state hunting and fishing licenses, and through funds collected as excise taxes on guns, ammunition and fishing tackle, and distributed to the states by the federal government under the Pittman-Robertson and Dingell-Johnson Acts. Since hunters and fishermen were paying the costs, funds were designated primarily for research and management of game species, except limited federal aid funds which were designated for work with particular endangered species.

The Fish and Wildlife Conservation Act of 1980 may provide federal nongame and endangered species funds to the states in the future, but at present, no funds to support this act have been appropriated by Congress and the status of this program remains uncertain.

There has been increasing public awareness of the non-consumptive value of wildlife. For example, the Virginia Outdoors Plan (1979) estimated that "sportsmen enjoyed 7,049,000 man-days of upland game hunting and 464,000 man-days of waterfowl hunting, and non-comsumptive wildlife-related activities such as bird watching, wildlife photography, and nature study provided in excess of 80,000,000 man-days of recreation."

In Virginia, there are 58 species of birds and mammals that are considered game and 291 species that are nongame. There are also many more species of nongame fish than there are of game fish, not to mention the many reptiles, mollusks, amphibians and crustaceans that inhabit our state and are included under the mantle of nongame wildlife. It is interesting to note that more than 75 percent of all wildlife species native to Virginia are found on Commission-owned wildlife management areas.

A comprehensive plan for management of nongame wildlife is being developed by the Game Commission. One part of this plan is being developed cooperatively by the Virginia Game Commission and the Virginia Cooperative Wildlife Research Unit at Virginia Tech on Commission-owned lands. Under this part of the plan, the lands are being photographed using aerial infra-red photography from which cover maps will be made (the cover is the type of vegetation that exists on the land). Various types of vegetation provide "cover" used by varying forms of wildlife. Each map will be computer-analyzed to produce maps of each area showing various cover types and the acreage of each type available. Additional analysis will indicate the numbers of species that each acre is capable of supporting.

An extremely important feature of this program will be its usefulness for short- and long-range planning. Any changes in habitat can be quickly analyzed to determine their effects on the animals present and what effects would likely be expected at designated intervals, up to 50 years or more in the future.

Using this tool, the manager will be able to prescribe any type of habitat changes necessary to benefit particular species and do so with the ability to predict the overall effects on the habitat and the wildlife. The planning maps will assist managers in determining where and how habitat manipulation should be accomplished. This program may readily be extended to a statewide level, using satellite data.

Another program about to get underway involves a computer data base containing a comprehensive list of all wildlife species in Virginia, their distributions and life histories.

The major thrust of the nongame program will be to include all wildlife species in the management planning process with special emphasis given to any species that is threatened or endangered. The future will be in terms of wildlife planning, management and research, not just in terms of game and nongame.

As part of the program, the Commission plans to assist urban planners in the development of wildlife habitats in or close to urban areas in order to enhance the quality of urban wildlife and to provide urban dwellers the opportunity to appreciate and understand wildlife.

The Commission also plans to provide more information regarding wildlife to the public to enhance the public understanding and appreciation of wildlife, as well as its needs and its problems.

Through interpretive programs on Commission-owned lands, the public will be provided with more opportunities to see wildlife and, as a result of the interpretive nature of the program, to gain a greater appreciation and understanding of these creatures that share our state with us.

Our new nongame program is designed to ensure that song birds and chipmunks and hundreds of other lesser known and seldom seen creatures continue to exist and enrich the lives of generations yet unborn. We are fortunate in having an opportunity to play an important part in this program. Keep this in mind when you're doing your Virginia tax returns. Let's give wildlife a tax break!□

Joe Coggin is a research biologist supervisor for the Game Commission in southwest Virginia.

Hassel Taylor

Hunters and biologists are still learning about the woodcock, and although they are increasing in popularity throughout the South, Virginians still won't have much competition for the . . .

The Swamp Partridge

by Gerald Almy

The woodcocks are in!"

Ten years ago, such a joyous announcement would have brought forth a round of blank stares even from the most fanatical Virginia bird hunters.

Not any more.

Woodcock fans now find themselves part of a quickly-growing segment of the bird-hunting community. "Timberdoodles," as aficionados are fond of calling these odd-looking little gamebirds, are "in," perhaps because the mainstay bobwhite quail isn't faring so well under modern agricultural methods.

Whatever the reasons, doodle devotees are becoming increasingly common in the swamp thickets and briar patches bordering the Old Dominion's spring seeps, streams and beaver ponds.

Witness opening day in Virginia last year. For the previous five years, I had spent this first day in a small covert of prime woodcock habitat on public hunting land not far from my home. Always, I have had the covert entirely to myself. Oh, there'd be a bow hunter or a muzzleloader tripping over birch saplings now and again, stirring up a doodle accidentally before I could get to it. But no real competition for these delectable, dark-fleshed night migrants.

The deer hunters would stare menacingly at me and ask what I was poaching with my shotgun, since quail and rabbits obviously weren't in season.

I'd tell them, "Woodcock are legal now."

They'd stare back blankly.

I'd saunter on.

And in my wanderings, find enough "swamp partridges" to make any upland birder smile. On many such days, 15 or more woodcock would flush before my halting approach. (We won't talk about how many fell! Suffice to say, it was usually fewer than the five-bird limit.)

Two years ago I had my first rude indication that word of this delightful, neglected upland sport was slipping out. I pulled up to the parking lot of the hunting area and was greeted with squeals from a van full of Brittany spaniels. Assorted birdy-looking hunters hung on the doors and tailgates, stuffing their shells with No. 8's.

Alas, they weren't going after deer with that kind of ammunition.

Things went smoothly enough that year. The hunters had heard something about the area, but didn't know the best section of the covert was within shooting distance of their vehicle. I tried to look chagrined as they headed off up the mountainside at a rapid clip, like they were beating me to the best spot.

When the dogs and hunters turned the corner behind the last walnut tree, though, I couldn't prevent a fox-like smile from spreading across my face. I eased over to the brushy thickets near the stream and was almost immediately greeted with the delightful twittering takeoff of a fat hen woodcock. The 16 gauge double did its duty, and within the hour I was leaving the covert. There were plenty of birds still in it, and four fat friends bulged from back of my game pouch.

One thing I didn't anticipate, though. Shots can be heard a long way off. The hunters with the Brittanies must have smelled something amiss in the woodcock covert. For on last year's opener, even though I showed up half an hour before shooting light to make sure I was first, they were already there, loading up and eyeing my favorite cover right next to their van!

I set off, trudging up the mountainside, casting a longing glance backward as I turned the corner past the last walnut tree. Not only had they discovered my pet covert, half an hour later two more carloads of woodcock hunters poured into the parking area and began stomping through the briars and underbrush bordering the stream.

"Enough's enough," I mumbled to myself a short while

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later and called its quits for the time being, to allow the opening day crowds to disperse. And it proved a wise move. The mild fall meant that woodcock were pretty sparse on the October 20 opening anyway, and a week later the birds proved more abundant and the hunters less plentiful—a perfect combination.

Though there are some year-round resident woodcock in Virginia, the best shooting takes place when the migrating flights from Canada and New England start filtering down. If these areas experience sharp, cold weather early in the fall, northern Virginia hunters can find plenty of woodcock in the coverts by the third week of October. If weather to the north is mild, as it was last year, the best sport occurs in northern counties during early November. Hunters in central and southern Virginia usually find the most timberdoodles from mid-November through early January.

Not only does cold weather move the birds south, they often wait for a strong high pressure system from the north with hard winds to help push them along on their travels. Biologists working at Pennsylvania State University did a study on the migrating habits of woodcock by placing tiny radio telemeters on the birds and monitoring their flight patterns with a truck and aircraft. One of the birds studied flew for just under three hours without stopping, covering 92 miles before landing near Front Royal.

While woodcock are becoming more popular throughout the South, they're still fairly lightly hunted in Virginia. Once opening day is past, you'll have most of the better covers all to yourself. Throughout the entire country, roughly 1.5 million woodcock are harvested annually. In Virginia, the take is around 40,000 birds.

Though populations of these long-beaked, seven-ounce birds seem to be holding fairly steady, biologists admit they don't know as much about their numbers and status as they'd like to. One way hunters can help is by participating in the wing sample survey conducted each year by the U.S. Fish and Wildlife Service, Migratory Bird Habitat Research Laboratory, Laurel, Maryland 20811.

Studies conducted in Virginia by Game Research Biologist W. Hassel Taylor showed that woodcock in our state favor vegetation eight to 15 feet tall. Alder, birch, ash, dogwood, holly, plum thickets, sumac and young maples were utilized.

Though they occasionally frequent dry hillsides, particularly during midday hours, woodcock spend most of their time along moist stream bottoms where they find plentiful supplies of earthworms to feed on. Moist, spongy ground that sinks an inch or two when you step on it is best.

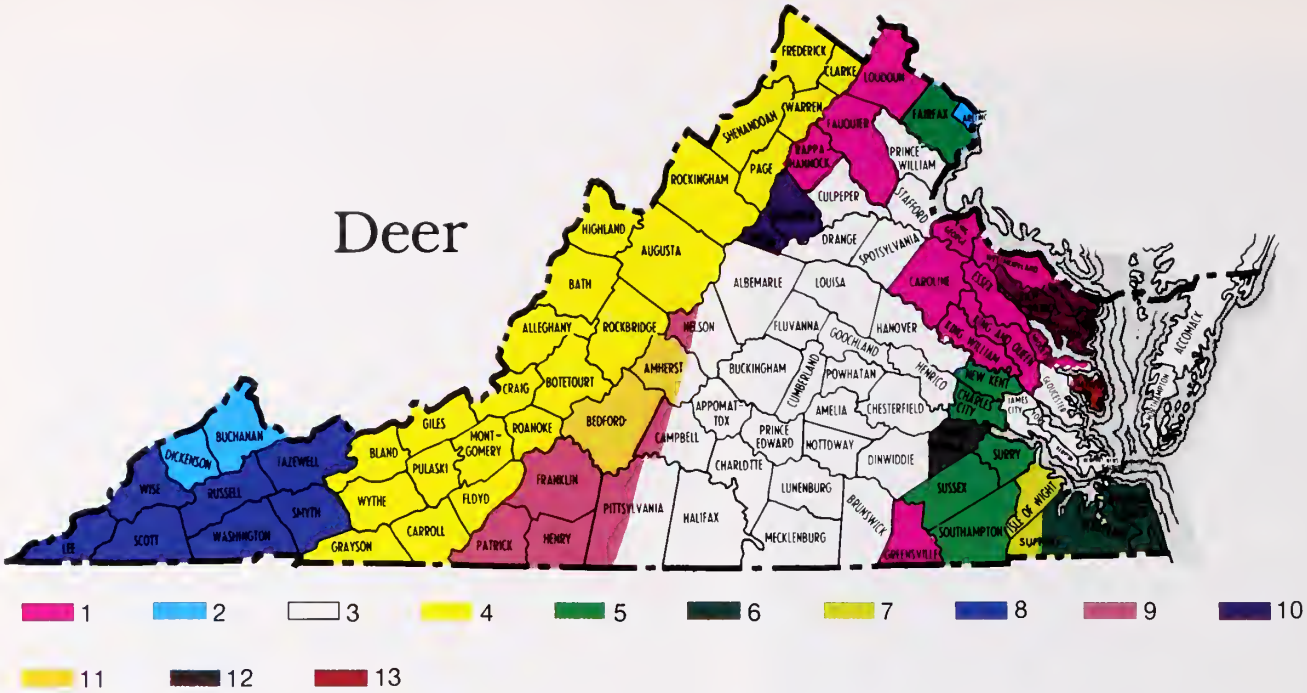
Chalky white "splashings" about the size of a quarter will tell you whether woodcock have been passing through. If the sign is fresh and moist to the touch, get ready. The musical, whistling flush of a doodle is imminent.

Close-working pointers, setters and Brittanies do well on woodcock, or you can jump them up if you find the holding areas. When hunting without dogs, though, spend as much time stopping and waiting for the birds to flush as you do plodding through cover. This seems to unnerve the fidgety doodles and sends them vaulting for the nearest opening in the thick canopy of trees where they make their homes.

Woodcock are fragile birds, and light loads of No. 8 or 9 shot will easily bring them down. Shots are seldom longer than 30 yards, and most are considerably closer. Thus an open-bored gun is best, along with light, short barrels.

The limit on woodcock is five daily, but if they manage to put two or three doodles in their game pouch, most bird hunters consider their time well spent. □

Gerald Almy is a regular contributor to Virginia Wildlife, *and other such well-known publications as* Field and Stream *and* Southern Outdoors. *He lives in Woodstock, Virginia.*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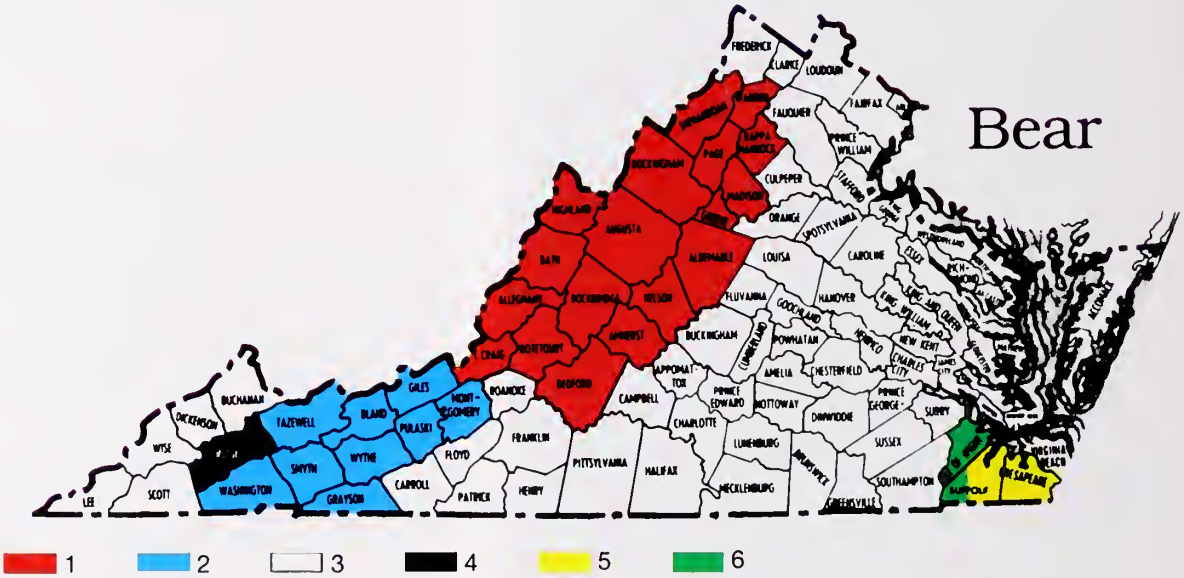
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VIRGINIA BEACH
HESAPEAKE
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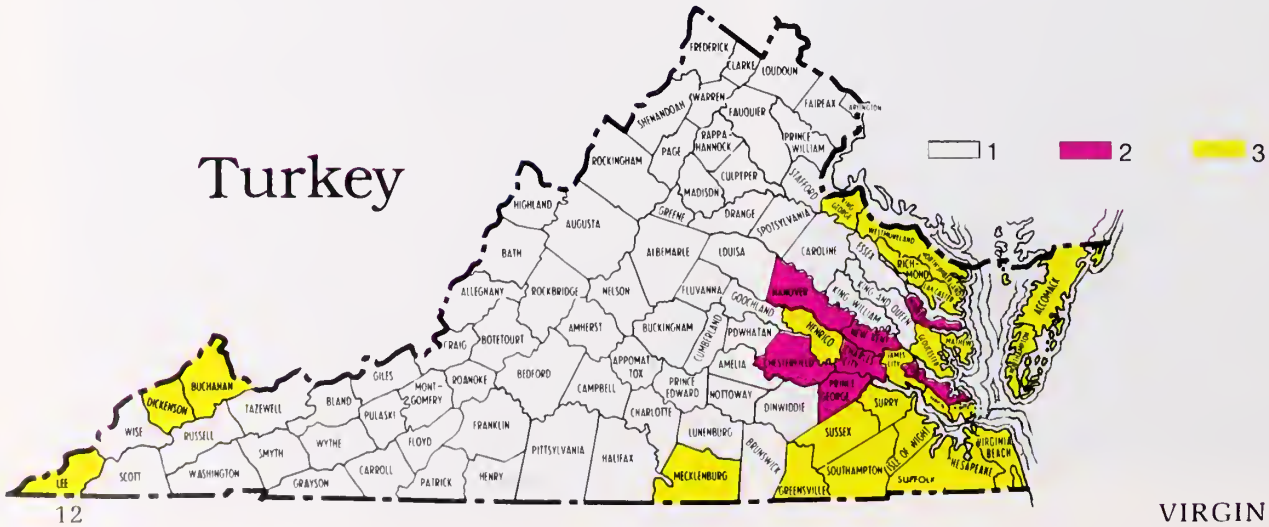
Turkey
FREDERICK
CLARKE
LOUDOUN
FAIRFAX
SHENANDOAH
WARREN
FAUQUIER
PRINCE WILLIAM
ROCKINGHAM
PAGE
RAPPA-HANNOCK
CULPEPER
STAFFORD
MADISON
HIGHLAND
AUGUSTA
GREENE
ORANGE
SPOTSYLVANIA
BATH
ALBEMARLE
LOUISA
CAROLINE
ESSEX
RICHMOND
ALLEGHANY
ROCKBRIDGE
NELSON
FLUVANNA
GOOCHLAND
HANOVER
KING WILLIAM
KING AND QUEEN
ACCOMACK
AMHERST
BUCKINGHAM
CUMBERLAND
POWHATAN
HENRICO
NEW KENT
CRAIG
BOTETOURT
APPOMAT-TOX
AMELIA
CHESTERFIELD
CHARLES CITY
GILES
BEDFORD
CAMPBELL
PRINCE EDWARD
NOTTOWAY
PRINCE GEORGE
BUCHANAN
MONT-GOMERY
ROANOKE
DINWIDDIE
SURRY
DICKENSON
TAZEWELL
BLAND
PULASKI
CHARLOTTE
FRANKLIN
WISE
RUSSELL
SMYTH
WYTHE
FLOYD
LUNENBURG
SUSSEX
PITTSYLVANIA
HALIFAX
BRUNSWICK
LEE
SCOTT
WASHINGTON
GRAYSON
CARROLL
PATRICK
HENRY
MECKLENBURG
SOUTHAMPTON
GREENSVILLE
SUFFOLK
VIRGINIA BEACH
HESAPEAKE
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1981 Game Laws

These excerpts are reprinted from the 1981 digest of hunting regulations published by the education division of the Virginia Commission of Game and Inland Fisheries. For a copy of the digest, write: Game Laws, Virginia Game Commission, P.O. Box 11104, Richmond, Virginia 23230-1104.

Deer

1. *November 16-January 5. One per day, two per license year, either sex during the last 12 hunting days only.* In the counties of Caroline, Essex, Fauquier, Greensville, Isle of Wight, King and Queen, King George, King William, Lancaster, Loudoun, Middlesex, Northumberland, Rappahanock, Richmond, and Westmoreland.
2. *Season Closed.* It shall be unlawful to hunt deer at any time in the counties of Arlington, Buchanan, Dickenson and Fairfax* (in that section closed to all hunting).
3. *November 16-January 5. One a day, two a license year, either sex on the last six hunting days only.* In the counties of Accomack (except on Chincoteague National Wildlife Refuge and Parramore Island), Albemarle, Amelia, Amherst (east of U.S. Route 29), Appomattox (except on Buckingham-Appomattox State Forest), Brunswick (except on Fort Pickett), Buckingham (except on Buckingham-Appomattox State Forest), Campbell (east of Southern Railroad), Charlotte, Chesterfield (except on Presquile National Wildlife Refuge), Culpeper (except on Chester F. Phelps Wildlife Management Area), Cumberland (except on Cumberland State Forest), Dinwiddie (except Fort Pickett), Fluvanna, Gloucester, Goochland, Halifax, Hanover, Henrico, James City, Louisa, Lunenburg, Mecklenburg, Nelson (east of Route 151), Northampton, Nottoway (except on Fort Pickett), Orange, Pittsylvania (east of Southern Railroad), Powhatan (except on Powhatan Wildlife Management Area), Prince Edward (except on Prince Edward State forest), Prince William (except on Harry Diamond Laboratory and Quantico Marine Reservation), Spotsylvania, Stafford (except on Quantico Marine Reservation), and York (except on Camp Perry, Cheatham Annex and Naval Weapons Station), in the cities of Hampton (except on Langley Air Force Base), Newport News (except on Fort Eustis).
4. *November 16-November 28. One per license year, either sex the last day only.* In the counties of Alleghany, Augusta, Bath, Bland, Botetourt, Carroll, Clarke, Craig, Floyd, Frederick, Giles, Grayson, Highland, Montgomery, Page, Pulaski, Roanoke, Rockbridge, Rockingham, Shenandoah, Warren and Wythe.
5. *November 16-January 5. One per day, two per license year, either sex.* In the counties of Charles City, Fairfax, New Kent, Southampton, Surry, Sussex, and on Parramore Island.
6. *October 1-November 30. One per day, two per license year, either sex the last six hunting days only.* In Suffolk east of the Dismal Swamp Line (except in Dismal Swamp National Wildlife Refuge), and in the cities of Chesapeake (except on Dismal Swamp National Wildlife Refuge) and Virginia Beach.
7. *November 10-January 5. One per day, two per license year, either sex the last twelve hunting days only.* In Isle of Wight and in Suffolk west of the Dismal Swamp Line.
8. *November 16-November 28. One per license year, bucks only.* In Lee, Russell, Scott, Smyth, Tazewell, Washington and Wise.
9. *November 16-28. One per day, two per license year, either sex last two hunting days only.* In the counties of Campbell (west of Southern Railroad), Franklin (except on Philpott Reservoir), Henry (except on Fairystone Wildlife Management Area and Philpott Reservoir), Nelson (west of Route 151), Patrick (except on Fairystone Park, Fairystone Wildlife Management Area and Philpott Reservoir) and Pittsylvania (west of Southern Railroad).
10. *November 16-January 5. One per day and two per license year, either sex the last hunting day only.* In the counties of Greene and Madison (except on Rapidan Wildlife Management area). No dogs for hunting during the first 12 days of this season.
11. *November 16-28. One per day, two per license year, either sex on the last three hunting days only.* In the counties of Amherst (west of U.S. Route 29) and Bedford.
12. *November 16-January 5. One per day, two per license year, either sex the last three hunting days only.* In the county of Prince George.
13. *November 16-January 5. One per day, two per license year, either sex the last two hunting days only.* In the county of Mathews.

*HUNTING IN FAIRFAX COUNTY RESTRICTED TO CERTAIN PARCELS OF LAND BY POLICE PERMIT ONLY

Bear

BAG LIMIT: One per license year, at least 100 pounds live weight or 75 pounds dressed weight (all entrails and internal organs removed). Females with cubs may not be killed

1. *November 23-January 1.* In Albemarle, Alleghany, Amherst, Augusta, Bath, Bedford, Botetourt, Craig, Greene, Highland, Madison, Nelson, Page, Rappahannock, Rockbridge, Rockingham, Shenandoah and Warren Counties. (Dogs not permitted from *November 17-29*, see "Hunting with Dogs.")
2. *November 2-January 5.* In Bland, Giles, Grayson, Montgomery, Pulaski, Smyth*, Tazewell*, Washington*, and Wythe (no dogs from *November 19-December 1*). *Except Clinch Mountain & Hidden Valley Wildlife Management Area.
3. *Closed.* In Accomack, Amelia, Appomattox, Brunswick, Buchanan, Buckingham, Campbell, Caroline, Carroll, Charles City, Charlotte, Chesterfield, Clarke, Culpeper, Cumberland, Dickenson, Dinwiddie, Essex, Fairfax, Fauquier, Floyd, Fluvanna, Franklin, Frederick, Gloucester, Goochland, Greensville, Halifax, Hanover, Henrico, Henry, James City, King and Queen, King George, King William, Lancaster, Lee, Loudoun, Louisa, Lunen-burg, Mathews, Mecklenburg, Middlesex, New Kent, Northampton, Northumberland, Nottoway, Orange, Patrick, Pittsylvania, Powhatan, Prince Edward, Prince George, Prince William, Richmond, Roanoke, Scott, Southampton, Spotsylvania, Stafford, Surry, Sussex, Westmoreland, Wise and York Counties, in the Cities of Hampton, Newport News, Virginia Beach and on the Hidden Valley Wildlife Management Area in Washington County
4. *December 5-December 17.* Russell County and Clinch Mountain Wildlife Management Area.
5. *October 1-November 30.* In the cities of Chesapeake and Suffolk east of the Dismal Swamp line.
6. *November 10-January 5.* In Isle of Wight County and the City of Suffolk west of the Dismal Swamp line.

Special stamp to hunt deer, bear in Alleghany, Bath,* Bland, Botetourt, Craig, Giles, Grayson,* Highland,* Rockbridge, Russell, Tazewell, Washington,* and Wythe* counties, in addition to other licenses, and sold only by the clerks of those counties 1.00

*Nonresident in Bath, Grayson, Highland, Washington, and Wythe counties 5.00

Turkey

Turkeys are to be hunted with nonelectric callers Dogs and organized drives are prohibited in spring season.

1. *November 2-December 31.* One per day, two per license year, one may be a hen in the fall. In Albemarle, Alleghany, Amelia, Amherst, Appomattox, Augusta, Bath, (except Gathright WMA), Bedford, Bland, Botetourt, Brunswick, Buckingham, Campbell, Caroline, Carroll, Charlotte, Clarke, Craig, Culpeper, Cumberland, Dinwiddie, Essex, Fairfax, Fauquier, Floyd, Fluvanna, Franklin, Frederick, Grayson, Giles, Goochland, Greene, Halifax, Henry, Highland, King & Queen, King William, Loudoun, Louisa, Lunenburg, Madison, Montgomery, Nelson, Nottoway, (except Ft. Pickett), Orange, Page, Patrick, Pittsylvania, Powhatan, Prince Edward, Prince William, Pulaski, Rappahannock, Roanoke, Rockbridge, Rockingham, Russell, Scott, Shenandoah, Smyth, Spottsylvania, Stafford, Tazewell, Warren, Washington, Wise and Wythe Counties.(See Special Seasons for exceptions).
2. *November 2-November 14* One per day, two per license year, one may be a hen in the fall. Charles City, Chesterfield, Hanover, Middlesex, New Kent, Prince George, and York Counties.
3. *Closed to Fall Turkey Hunting.* In Accomack, Buchanan, Dickenson, Gloucester, Greensville, Henrico, Isle of Wight, James City, King George, Lancaster, Lee, Mathews, Mecklenburg, North umberland, Richmond, Southampton, Surry, Sussex, Westmoreland, and Counties, the cities of Chesapeake, Hampton, Newport News, Suffolk, and Virginia Beach and on the Gathright Wildlife Management Area. (See *Special Seasons* for exceptions.)

   SPRING GOBBLER SEASON. April 17-May 15 statewide. One half hour before sunrise until 11 a.m. each day. *BAG LIMIT.* One bearded bird per day, two per license year in all counties. Yearly bag limit to include fall and spring season combined.

Formula for Trophy Trout

Special trout regulations mean you may have fewer trout on the table, but your creel will be just as full. Sometimes less is more.

by Paul Bugas and Larry Mohn

Some fishermen see special trout regulations as constraints which limit use of a stream to a select few anglers. While special regulations do put greater restrictions on angling methods and creel limits, the result has always been an increase in fishing opportunities for the general public and a significant improvement in the quality of trout fishing provided.

Special regulations have been a part of trout management for as long as sportsmen have pursued these elegant gamefish. Such regulations were initiated in areas which had extensive trout resources and a heritage of dedicated trout fishermen. Although special regulations are historically more common in states such as New York, Pennsylvania, Michigan and Wyoming, the concept is much more applicable and important to trout management in Virginia.

Generally, the purpose of a special regulation is to provide more and bigger fish for the fishermen to catch at the expense of reducing the number of fish creeled. It, therefore, places the emphasis on the recreational aspect of sport fishing rather than how many fish are taken home. The reason that this concept is so important to fishermen in Virginia is a matter of numbers. The Commission and federal hatcheries together now stock approximately one million catchable trout per year, with little likelihood that this number can be significantly increased in the near future. The wild trout streams, when managed at maximum yield, are capable of producing another 300,000 trout annually. This looks like a large number of fish, but this total only provides six to seven trout for each of some 200,000 trout fishermen in the state.

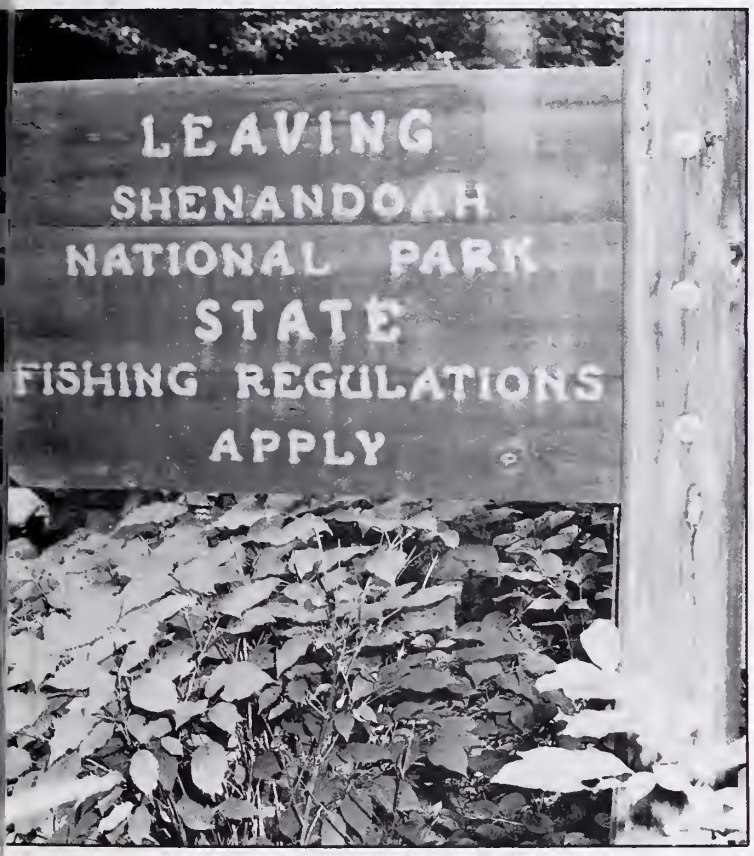
The average trout fisherman would not be dissatisfied with the expectation that he might only catch this many trout each year. But how will special regulations help this situation? The answer lies in how many trout are *caught* per year rather than how many are *eaten*. In a special regulation stream, fish are generally caught numerous times before finally ending up in the creel. The result is added recreation and the opportunity for a single trout to provide an enjoyable experience for several anglers.

Special regulations, as adopted by the new set of Commission trout regulations, apply to selected wild trout streams as well as several types of stocked trout streams. In many cases, streams included under these special regulations were already regulated in a similar manner but several new streams were also added.

The special regulation which generally applies to wild trout streams requires that all trout less than nine inches long be returned to the water unharmed, and that only artificial lures with single hooks be used. The only wild trout stream special regulations that differ are the fish-for-fun regulation on the Rapidan River and its tributaries and the eight inch minimum size limit placed on all Shenandoah National Park streams. The purpose of this type of regulation is to provide a good population of adult fish throughout the fishing season. For the knowledgeable angler, wild trout (particularly brook trout) are very easily caught. Therefore, after only a short period, most legal sized trout will be removed from the population. With this regulation in force, catchable size trout are available throughout the season, providing good fishing at any time. The notion that this type of regulation tends to decrease fishing pressure is incorrect. In fact, all streams so designated in recent years have shown a sharp increase in fishermen use and the special regulation streams, as a group, receive several times more

fishing pressure than those managed under general regulations.

The second special regulation category applies to selected stocked trout streams. This regulation permits creeling of six fish per day over 12 inches in length and again restricts fishing to the use of single hook artificial lures. This regulation was established to utilize some of the larger coldwater streams that are productive enough to provide good growth of trout but are not capable of natural reproduction. The management approach is to stock catchable eight- to 10-inch trout and allow these fish to grow several months to a year before reaching legal size. This allows the fish to provide good sport-fishing throughout the year for a large number of anglers. This approach has an added advantage over put-and-take trout stocking in that it does not generate large



crowds immediately following stocking. Lack of large crowds at any one time is desirable to the angler but is also highly desirable to the landowners. Constant pressure throughout the year is far more desirable to landowners than occasional large crowds. Therefore, it becomes much easier to open private streams to fishing under this approach. At present, only two streams, Little River in Floyd County and Snake Creek in Carroll County, are managed this way. However, it is hoped that a number of these streams can be opened near the larger population centers in western Virginia.

Perhaps the most exciting of the newly adopted regulations is the so-called trophy regulation. Here, two trout 16 inches or longer may be creeled daily. Once again, angling is restricted to the use of single hook artificial lures with the exception of Mossy Creek in Augusta County, where flyfishing only is permitted. Most of the creeks chosen for development into trophy trout fisheries are found in the central valley of western Virginia, between the Blue Ridge and Alleghanies. The type of stream that appeals so much to sportsmen and biologists is unique in that its flow is comprised of cold, oxygenated spring water that originiates in the lime-stone substrate that lines the valley floor. These "chalk" streams are extremely rich in nutrients that enhance the growth of aquatic life to a greater extent than do most mountain streams.

Although 300 miles of springfed creeks were identified as promising trout water upon completion of the trout stream survey, only a handful were found to support any sort of viable trout population. Nonetheless, those limestone trout streams that were sampled during the survey yielded fish of outstanding size. Subsequent scale analysis showed that these trout greatly outgrew their soft-water counterparts. Through the coordinated efforts of state fishery biologists, dedicated anglers and interested landowners, three streams are currently open to those enthusiasts in quest of trout of trophy proportions—Mossy Creek in Augusta County, Beaver Creek in Rockingham County, and Smith River in Henry County. Several additional streams are presently under study and should appear as trophy public trout streams within the next few years.

The trophy trout streams have the same advantages of dispersed use and landowner appeal as do the other stocked special regulation streams. In addition, this management option generally utilizes fingerling (two- to four-inch) trout which can be produced at very little cost and in surplus of what can be used in the Commission's trout rearing facilities. Therefore, existing hatcheries are capable of producing additional fish at nearly the same cost. The final advantage to the trophy streams is that they are open year-round, providing fishing during the normal trout closure for those who can't wait to wet a line.

All special regulation streams require the use of single hook artificial lures or flies. Some see this as a restriction which eliminates bait fishermen for the benefit of those who prefer to fish with artificials. The special regulations have not been established, however, to discriminate against bait fishermen. Instead, the single hook artificial lure restriction is necessary to this type of fishery because it promotes the release of fish unharmed. Most existing equipment in use for trout fishing is quite capable of being used with artificial lures and the ability to fish these lures properly can be acquired with little practice.

The addition of the special regulation trout fisheries greatly diversifies the trout fishing opportunities available to the Virginia sportsmen. Now there is the opportunity to travel to a selected wild trout stream knowing that the population contains good numbers of adult trout; leave home after work and catch a few trout before nightfall; or fish a trophy stream and routinely catch 12- to 16-inch trout along with an occasional trophy fish. Virginia is not too far south for quality trout fishing opportunities. Streams here may not be as plentiful or as large as their northern counterparts, but some are as productive. The secret to great trout fishing is to appreciate the sport of catching trout, limit your creel to the larger fish, and curb your appetite for a trout dinner. □

Larry Mohn and Paul Bugas are biologists with the Game Commission's fish division.

Penny Miller: mother, housewife and now, in a matter of months, woodcarver par excellence!

Her talent surfaced only recently and no one was more astonished than the artist herself.

Her specialty is songbirds and the precisely finished product is a delightful combination of beauty, grace and authenticity which belies her so recent entry into the ranks of those who carve.

Born in Windsor, Ontario, she was brought to the United States at age six weeks and adopted by a couple who lived in Grosse Point, Michigan. Her new father was a lawyer and her mother a talented portrait artist. Both parents were fond of wildlife and Penny can't remember when their bird feeders weren't teeming with life. Looking back now, she realizes that most certainly this early association with songbirds had something to do with her current involvement in bird carving.

Her early life was full of beauty. Besides birds, there was a seemingly endless succession of blooming flowers in the gardens around her home as a result of her mother's "green thumb."

As Penny matured, she attempted a number of artistic projects in school. Each time she did, she was met with criticism which eventually discouraged her to the point that she avoided anything to do with art. It was to be some thirty years before she would ever again attempt to express herself in any artistic manner.

In 1975 she married Lowell Miller. Their home in Reston, Virginia is beautifully situated in close proximity to a wide variety of trees and other excellent habitat. It is an ideal setting for bird watching that the couple so enjoys. They also enjoy "antique hunting," which fits in nicely with Lowell's wood refinishing hobby. This avocation prompted them to attend the annual celebration of "New Oxford Day" in New Oxford, Pennsylvania. While attending the craft fair, they observed a man carving duck decoys. One carving in particular attracted Lowell's attention. It was a hooded merganser for which the carver, Dan Williams, had been awarded first place in a recent contest. Lowell ordered a copy of the carving and in the next few months, the Miller and Williams families became fast friends. Penny and Lowell would try to go to any show where Williams was showing his work. One night in January 1979 while the couples were having dinner at the Millers' house Penny asked Williams if he thought she could learn to carve. He said she could and invited her to join a class he was conducting the following day. She returned home the next day with her very first carving. It was a crude titmouse, but she had done it, and as she explains it, "I was bitten by the carving bug, but good!"

By May of that year, she had progressed enough that she participated in her first exhibit. It was the Reston Festival at Lake Anna. Soon she began entering carvings in competitive shows. During the Richmond Wildfowl Carving and Exhibition in February 1980, she took a third place with one of her female cardinal carvings. This was followed by a large number of shows throughout the eastern seaboard.

In May 1980, while Penny was participating in the Northern Virginia Society of Ornithology's State Convention at Marymount College in Arlington, an interested party suggested that she consider applying to exhibit at the forthcoming North American Wildlife and Natural Resources Conference, scheduled for March 1981 at Washington's Shoreham Hotel. She did apply and was accepted to participate in the prestigious event.

The extremely favorable reaction to her work by the wildlife professionals attending the meeting from throughout the world was nothing less than breathtaking. In Penny's words, "It left me in a state of shock."

To date, the year 1981 has continued to be one of success after success. In February she took first place with a blue jay at the Richmond Wildlife Carving and Art Exhibition and third place with a pair of wrens. Later it was an honorable mention with the wrens at a Delaware show. After the stunning reception at the North American, she placed third with a pair of wrens at the United States Carving Competition in New York City. Later, a pair of wrens was awarded a Blue Ribbon (first place), and her chickadee pair won an honorable mention in two different categories at the Ward Foundation World Championship Wildfowl Carving Competition in Ocean City, Maryland.

Her most recent triumph at this writing took place at the International Woodcarvers Congress held in July 1981 in Davenport, Iowa. Sponsored by the National Woodcarvers Association, this is the competition which attracts carvers from throughout the world.

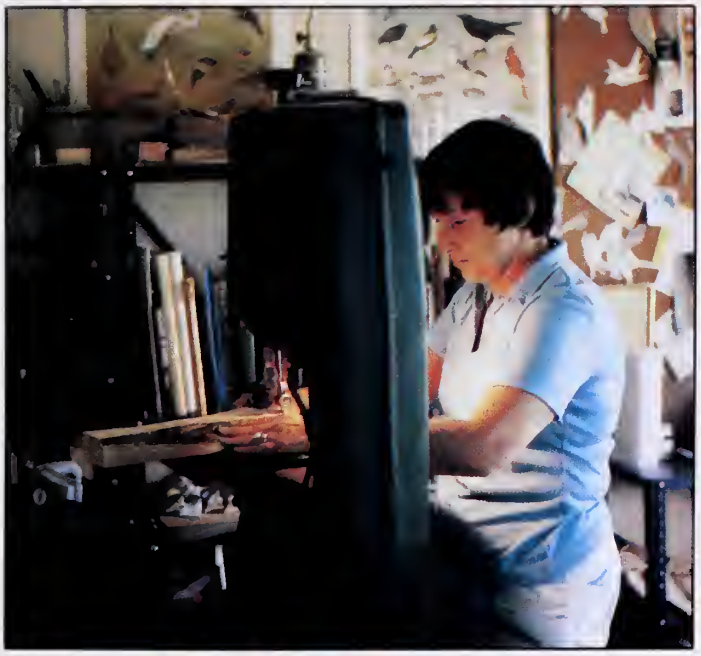
Penny entered and "cleaned up." She was awarded both a first and third place in the Realistic Painted Bird Category, first place for a pair of Carolina wrens, and a third place for her blue jay.

Penny hastens to call attention to the magnificent mounts on which her birds perch. These are skillfully fashioned by her husband, Lowell. Penny takes great satisfaction in her work, her stunning success and the fine team that she and Lowell have become. □

While her passion for carving birds came to her recently, local artist Penny Miller is already "cleaning up" at national contests with her

Blue Ribbon Birds

by Francis N. Satterlee



Penny Miller fashions her award winning bird carvings; first, she cuts the shape of the bird from a large block of wood; she sands and refines the carving; she paints each bird in meticulous detail; and finally, the carvings are mounted on Lowell Miller's beautifully crafted mounts.

Sugar Maple
(Acer saccharum)

Trees & Shrubs of Virginia

by Sarah Bartenstein

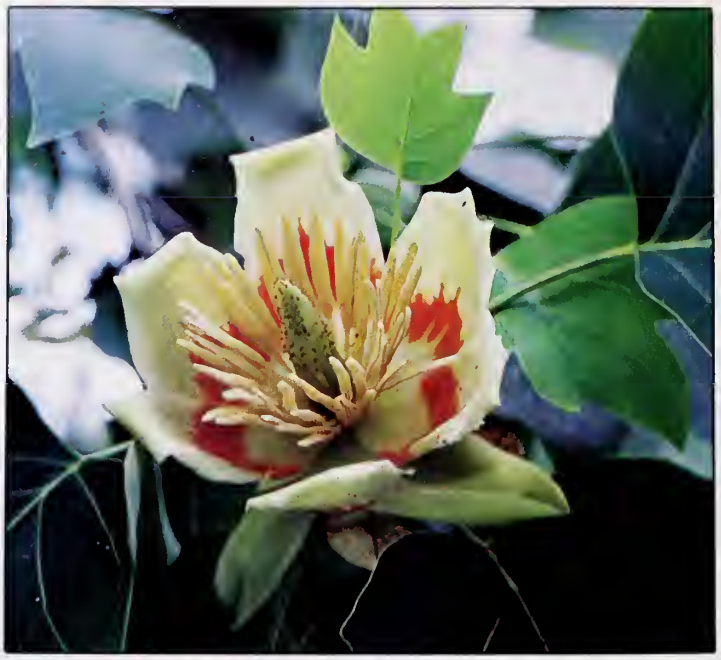
Scotch Broom
(Cytisus scoparius)

"The trees and shrubs constitute one of the most important and distinctive elements of the surface of the earth . . .(They) stand as a canopy over most of the other forms of terrestial life, and they characterize and control the natural communities of which they themselves are a part."

So write Oscar W. Gupton and Fred C. Swope in their introduction to "Trees and Shrubs of Virginia," published in August by the University Press of Virginia. Gupton and Swope, professor and associate professor of biology at Virginia Military Institute in Lexington, are also the authors of "Wildflowers of the Shenandoah Valley and Blue Ridge Mountains," the popular guidebook published in 1979 by the University Press of Virginia. "Trees and Shrubs" is an equally beautiful and helpful volume, featuring 200 color photographs of 100 species, with information about 85 additional species. Since many of the plants included are common to the eastern United States in general, this book is an important and versatile addition to any library.

One hundred species are shown in photographs: each is represented by a full page (5½" by 8½") photo of the entire plant, as well as a smaller close up showing the detail of the fruit, cone, or flower. Also included is a description of the plant—habitat, size of the plant, frequency, common and scientific names, and so forth—all in clear, non-technical writing.

Tulip Tree
(Liriodendron tulipifera)



White Pine
(Pinus strobus)

Several of the trees and shrubs in the book are reprinted here with their identifications. The photography, clear writing, and consistency of format combine to make this guide a valuable one for the veteran botanist as well as the beginner.

Photographs and excerpts from Trees and Shrubs of Virginia, by Oscar W. Gupton and Fred C. Swope, published 1981 by the University Press of Virginia, Charlottesville reprinted with permission of the publisher.

by Charley Dickey

The author wrestles with an age-old dilemma: what gift does the hunter take to his wife after a hunting trip?

BEANS TO YOU

Glenn Bernhardt

There are many strange customs in America. Wives usually start, them but husbands are expected to observe them.

Men are taught to believe that if they go on a two-day hunting trip, they should bring their wives a present. It shows how an affluent society can spoil its womenfolk. You'd think they'd be happy just to get a quarter of venison or a deer hide.

Just having the husband away from home for a few days ought to be present enough. The wife doesn't have to cook as much and she has total freedom to tune in any TV program she chooses. She can watch Dallas' J.R. without her husband threatening to pattern his shotgun on the screen.

Times change. It used to be that a box of chocolate candy was good enough for courting purposes, a salve to heal all marital rifts, and a sure solution for required gift-giving occasions such as birthdays. You could buy a box of chocolates in any drugstore without a lot of shopping around.

That was before women realized chocolate candy had calories. Now husbands are supposed to think of something unique. It can't be too expensive or unusual. You don't want to have your wife think your conscience is bothering you.

What can you buy at a deer camp? You might trade some hunter out of his boots or swap alarm clocks with him. There are old magazines and bottles lying around but none old enough to qualify as collectors' items or antiques.

Sometimes hunters drive past rural nurseries, but potted plants are a mistake. They wind up on the window ledges and last forever. No matter what potted plant you buy, it won't die! I can't open a window in my house without first moving a dozen immortal potted plants. They hang from the ceiling like gourds from a martin house.

On those hunting trips which necessitate air travel, the hunter would be hard-pressed to find a gift were it not for the airport gift shop, especially the one in his home town. A friend of mine recently spent 10 days wing shooting in Mexico. When the plane touched down at his local airport, he suddenly remembered that he was married.

He rushed to a souvenir shop, waved a handful of bills and said, "Wrap me something made of silver!" Everyone knows you get good silver buys in Latin America.

When he got home, he hugged his wife and made a little speech saying how much he had missed her. He presented his offering and smiled as his wife eagerly tore off the wrapping. Then she threw the gift at him. It was one of those state capitol souvenir spoons from their own state with red and blue printing.

With the number of gift shops in nearly every town, the best time to shop is before you leave. You can do it at leisure, get the gift wrapped properly and then check it at the airport before you leave. You don't lose hunting time when you get where you're going.

It always pays to take a few snapshots at your destination. It's proof that you went where you said you were going and did what you were supposed to be doing. Don't hesitate to pose for a snapshot with someone else's deer.

There are certain common-sense rules about posing for pictures you wife might see. Never allow anyone to snap a shutter after the cocktail hour has begun. In pictures you're in, never look as though you're having the time of your life.

The best time for a picture of yourself is after you have been up all night and hunted the following morning until noon. You will appear tired, lonely and hungry, as though you are barely getting by without your wife. The picture will invoke deep sympathy from your wife and imply that you really can't get along without her.

Be careful of the background in any picture. Fishing pictures at the beach are particularly dangerous. Your wife will be needlessly distracted if there are bikini-clad girls in the background. When away with a group of fishing buddies, never leave your camera unattended. There is always temptation for a pal to take it and shoot several pictures of female sunbathers.

Even if you keep the camera safely with you, don't let your wife send the film off for processing. It's to your advantage to send the film off yourself, check the returns carefully and then show your wife the pictures she'd most like to see.

If it is necessary for you to take a gift home to your wife, do you own shopping. Never trust a hunting buddy. That's like asking a hunter not to shoot ducks that fly to the decoys while you're going to the bathroom. It is sinful to place temptation before another.

Be sure to check the labels on anything you buy as a gift for your wife. If she is convinced that you've been hunting mule deer in the wilds of New Mexico, don't give her a garment clearly labeled "Acapulco."

This leads to misunderstandings. Also, it could be the most expensive gift you ever bought. You might wind up taking her to Acapulco—first class.

If you've taken an expensive hunting trip, one you really couldn't afford, don't buy your wife a gift that will last. Buy something biodegradable that won't be an everlasting reminder. I personally find that Mexican jumping beans are hard to beat! □

Growing Up Outdoors

by Sarah Bartenstein

Nature News: Paper

Imagine your life without paper.

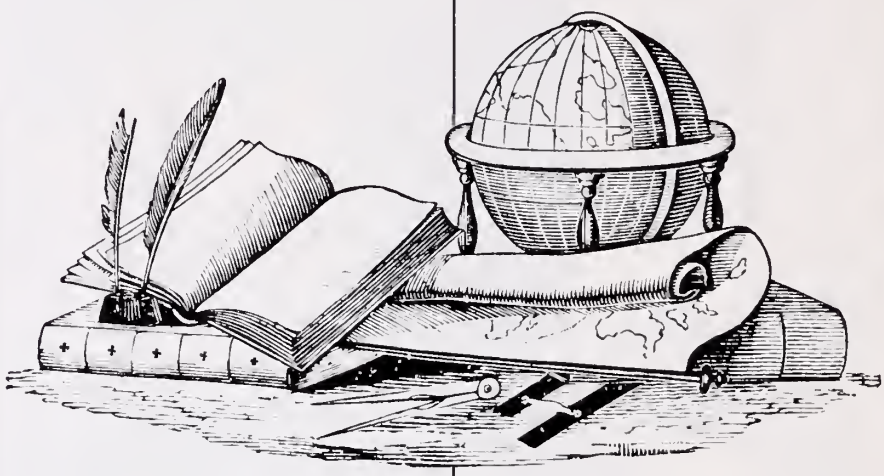
You would not be reading this magazine if there were no paper. There would be no books, no magazines, no letters without paper. What would your life be like without these things? How would you know what was happening in the rest of the world? And consider that there would be no television, radio, telephone or telegraph because their inventors would have had nothing on which to *invent* these things—paper is used to plan, to figure, to build almost everything from your math homework to skyscrapers.

But don't stop there. There would be no cardboard boxes, no paper cups, no tissues, no photographs, to name a few things. Can you think of other things you would have to do without if there were no paper?

Perhaps the most significant effect, however, would be this: we would have no recorded history. If we knew nothing of the people who have gone before us, think how different our lives would be. If the accumulated knowledge of civilization could not be recorded on paper, would we have sattelites, modern medicine, or the music of Beethoven?

Life without paper is unimaginable because paper is so much a part of our lives and our civilization.

How was paper developed? As you have probably learned, man used to communicate with symbols and pictures painted on stones and the walls of caves. As man developed letters and words, he carved them into stone tablets. As you can imagine, these were heavy and awkward. The early Romans began writing on leaves, but you can see that this might present problems, too: imagine how delicate the writing would have to be to avoid destroying the leaf. Then man began using *parchment*, which is formed from the skin of sheep and other animals. Have you ever heard the expression "sheepskin" used to refer to a diploma? This is because diplomas were printed on sheepskin or parchment at one time (some schools still use real parchment for their diplomas, but this is rare). Sometimes we use the term "parchment" to refer to very fine paper that resembles this ancient writing medium.



Another forerunner of paper was made from the papyrus plant. Part of the plant's stalk was cut into thin strips and laid side by side as a base. Then more strips were placed on top, crosswise over the base. A paste of wheat flour and water held the layers together. The sheet was dried in the sun and pounded smooth with mallets. People wrote on this "paper" with sticks dipped in berry juice.

The Chinese wrote on cloth with brushes dipped in berry juice. Cloth and paper have an important thing in common: they are both made up of *fibers*. So the Chinese invented paper as we know it today. As cloth for writing became more and more scarce, a Chinese scholar named Tsai Lun began experimenting with various materials. He mixed bark with water and hemp fibers, then mashed the mixture into a *pulp*. Then he pressed out the liquid and allowed the remaining pulp to dry. This produced a crude form of paper, but today's modern paper is not really so different from the first century kind. Fine rag paper is made in much the same way today, with some refinements, of course. Paper is also made from wood today, but when you see expensive stationery that is marked "100% rag," this means that it is made from cloth fibers, not from wood, and it is very much like the paper of Tsai Lun.

Did you know that the wasp is a paper maker? It chews up wood and plant fibers, and mixes the resulting powder with an adhesive that it produces with its own body. This forms the pulp which the wasp forms into the layers of paper which form its nest. Although the paper is extremely light and delicate looking, it is water resistant. It was the wasp that led man to discover how to use wood fibers to make paper. Until this discovery, cloth fibers had been used almost exclusively.

You can make you own "recycled" paper at home. Take some old, used paper and tear it into little pieces—if you want a "spotty" effect, use different colors of paper. Try construction paper, tissues, newsprint, paper towels, or whatever kind of paper you have around the house. ("Uncoated" paper, like the kinds just mentioned, will probably work better than paper such as most magazines are printed on—"coated" paper may feel slick or look a bit shiny.) Take the bits of paper and mix a little water with it—enough to make a pulp the consistency of oatmeal. Use a blender if you have one—but *only* with the supervision of one of your parents. You can add vegetable coloring if you like. Then, pour the pulp onto a piece of wire screen. Lay an old piece of cloth on top of the pulp, and place a board on top of that. Press on the board as hard as you can to get as much of the water out as possible. Then remove the board and flip the whole thing over so that the pulp is on top of the cloth. Remove the screen and put the pulp and cloth in the sun to dry. Make sure it is very dry before you try writing on the paper. □

It Appears to Me

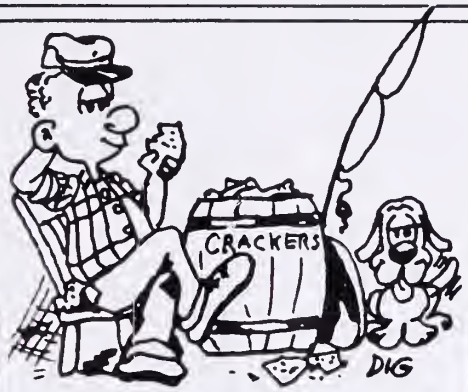
by Curly

. . . A PERSON OUGHT TO HAVE ONE

I think that it is tragic that so many folks really don't consider the harm that is being done to their ears when they insist that "volume is value" when it comes to everything from car engines to music. It is a fact that continued exposure to noise is not only detrimental to hearing, but can be harmful in other ways, also. Look around these days. Although it is October, people are still mowing lawns and using weed-eaters and all manner of gadgets which decisively deliver decibles beyond the comfortable hearing range. Yet rarely, if ever, do I see anyone wearing ear protection. Before I run on into a sermon on this subject, let me tell you that if your company, church or organization will drop a line on letterhead stationary to the company listed below, you can obtain films on loan free of charge which address the subject of ear damage and protection. Send your letter to: E-A-R Corporation, 7911 Zionsville Road, Indianapolis, Indiana 46268.

In the recent past I have chatted with some fine folks who over the years have been involved in teaching fishing. . . and it wasn't just to youngsters, either. Anyhow, they tipped me off about a free booklet which is just loaded with answers to questions which they have been asked a million times or more. It might just be worth your looking into if you are an expert. . . or just want to sound like one. For example, what would you say if asked the merit of ball bearings versus bushings in fishing reels? What would your reply be to a question pertaining to twisted line? Do yourself a favor and request a copy of "Questions Most Asked About Tackle . . . And The Answers." It is free from Zebco Customer Service, P.O. Box 270, Tulsa, Oklahoma 74101.

For you "horsey" types, a publicaton has become available which may be of interest. Entitled "Virginia . . . A Great Place to Ride," it was produced by the Virginia Commission of Outdoor Recreation and is certainly worth asking about. Contact



the Commission at 8th and Franklin Streets in Richmond, Virginia 23219.

With winter just around the corner it is time to once again jump on the "Energy Saver's Bandwagon." In that regard, let me call to your attention the free literature offered by the good people down at the Tennessee Valley Authority. They have produced a number of items on subjects ranging from purchasing firewood, to moisture problems in the home, to insulation and the proper manner in which to select a heat pump. All of these and others have been combined in an "Energy Saver's Kit." It's available free by calling TVA at the following toll-free numher: 800/251-9242 (in Tennessee 800/362-9250) or write to Citizen Action Office, 400 Commerce Avenue, Knoxville, Tennessee 37902.

. . . FOR YOUR BOOKSHELF

Recently I discovered a list of books with some of the most titilating titles that these eyes have seen in quite a spell. The only problem is that prices were not quoted. However, since you just might be interested, here are a few of the titles, the author's name and publisher. "The Ranger's Guide to Useful Plants of Eastern Wilds" (Deganawidah), The Christopher Publishing House, Boston, Massachusetts. "Field Guide to Edible and Useful Wild Plants of North America" (Myron C. Chase), National Supply Division, Boy Scouts of America, New Brunswick, New Jersey 08903. Two other publications which are available from the Boy Scouts of America at the above address are, "Field Book of Nature Activities and Conservation" (William Hillcourt) and "Using Wayside Plants" (Nelson Coon).

No doubt you are familiar with the old adage "No rest for the wicked." That bit of philosophy is certainly very appropriate when applied to a rather new and certainly very intriguing publicaton called "Rust Never Sleeps." This little gem was produced in Maine where each year more than 70,000 tons of the stuff is spread on the roads during just an average winter. Well sir, you can imagine the potential for rust in the automobiles and they have it in spades. They also have an abundance of "quick-cure," worthless rustproofing rackets going and a whole passel of the citizens got stung. That resulted in the Maine Attorney General's office asking the people in the consumer fraud division to produce a jim-dandy 32-page treatise on the subject. Although it is aimed at Maine, it goes into detail about the warranty law of each of the other states as well. Just thought you would be interested. The price is $1.00 for "Rust Never Sleeps," Consumer Division, Attorney General's Office, State House, Augusta, Maine 04333.

I reckon that nearly all of us that have been exposed to salt water are aware, often painfully, of certain critters that sting, bite or in some way make life, shall we say, "exciting," when encountered. With that in mind, the good people at your friendly Virginia Institute of Marine Science have whomped up another in their Education Series which, for my money, is right hard to beat. "Handle With Care!" is the title of this gem which not only describes the potentially harmful nuisance organisms and marine animals but also describes how they may be avoided and how certain injuries are best treated if they occur. The price is only $1.00 and this really helpful publication is available from the Sea Grant Communications Office, Virginia Institute of Marine Science, Gloucester Point, Virginia 23062.

. . . AND THEN

"So far in history, the handicapped have always been expected to adjust to society. The time has come for society to start adjusting to them. This will not be accomplished without a deep re-examination of our social values. It presents a test of how unselfish, humane and open-minded we are willing to be." Royal Bank of Canada Letter.

Personalities

by Eddie Edgar

Wildlife Watchdog, Otto Halstead

Otto Halstead would not swap his job with anyone in the world. He is manager of the Pocahontas Trojan and Barbours Hill wildlife management areas at Back Bay. He also is responsible for fish and game management at False Cape State Park, Cedar Island, and the old Newport News Hunt Club, now a part of False Cape Park.

During the hunting season he works 12-hour days, six-day weeks, and is on call all night long to go to the aid of anyone lost on Back Bay. He has spent many nights on the bay searching for lost hunters and fishermen.

"Hours don't mean anything when you enjoy your work," he explains.

Halstead inherited his love for Back Bay. His father, the late Roland O. Halstead, was game warden supervisor for the Hampton Roads District. During his regime, district headquarters were at Back Bay. Now they are in Chesapeake.

Roland protected the bay as if it were his baby. He was the first to advocate pumping saltwater into the bay. He was alarmed when he first discovered milfoil there, but later, when he learned waterfowl dined on the weed and bass thrived in the thick beds, he accepted it as a blessing.

Roland Halstead persuaded leading politicians, including several governors, to fish and hunt at Back Bay. They became valuable allies when the bay needed political help.

From his earliest days, Otto was as much at home on the bay as in his own backyard. He should have been, for the family home was within casting distance of the bay.

His father maintained an avian hospital for sick and injured waterfowl next to his home. Otto did his internship and residency caring for the birds. Now Otto has a similar facility adjacent to the Pocahontas clubhouse where he nurses ill birds back to health.

In his early teens, he served as a hunting and fishing guide. Then came the Korean war and Otto, right out of high school, enlisted in the U.S. Marines. During three years in Korea he "saw all the action I wanted to see," and ended his military career as a buck sergeant.

Since then he has been with the Virginia Commission of Game and Inland Fisheries. His official title is biologist aide. His duties are to manage and maintain commission-owned properties and to assist the sportsmen who utilize them.

The facilities offer great opportunities for hunters, fishermen, boatmen, hikers, bird-watchers and all those who enjoy the outdoors. Pocahontas has 12 duck blinds. Trojan has six and there are five more at Barbours Hill. Blinds are available during the waterfowl season to licensed sportsmen. Last year 1,400 applied for the 210 available permits. Lucky applicants were selected in a drawing.

Blinds at Cedar Island and the old Newport News Hunt Club became available this past season to the Commission for the first time. Hunts were held at these sites on alternate days in order to relieve the pressure on Pocahontas.

A free boat ramp and parking area for automobiles and trailers are available at Pocahontas.

Bank fishermen have a mile-and-a-quarter stretch along the canal at Pocahontas where they may enjoy their leisurely sport.

Halstead helped build a 240-foot dock at Barbours Hill and a 200-foot dock at False Cape. Both are available to boatmen and fishermen.

"Back Bay has the best bass fishing in the state, and perhaps the best on the Atlantic coast," Halstead brags.

Excellent hiking trails are in place at False Cape Park. Camping is available by permit. Permits may be obtained at Seashore State Park.

Back Bay, of course, is most famous for its duck hunting, once among the best in the world. That's no longer true.

Halstead is concerned about the decline in widgeon, gadwall, and coot this past season. He also is disturbed by the loss of 17 hunting days at the end of the recent duck season due to ice on the bay.

He had no comments on how to correct the problems. Some sportsmen are not as hesitant. They blame the late season, which they say was okay when diving ducks were legal game. Now that canvasbacks and redheads are protected the season should start earlier, when marsh ducks are plentiful and end before ice closes the bay, they contend.

Some claim the point system, which permits as many as 10 ducks per day, has caused the decline in widgeon and gadwall. They recommend adopting a daily bag limit as has North Carolina in recent seasons.

Halstead stays aloof of the controversy, preferring to keep busy serving sportsmen. So busy in fact he only went hunting once and fishing one time last year, both times with his 10-year old son, Kevin.

Kevin, as did his daddy, spends as much time as possible on the bay, keeping alive the Halstead tradition that goes back more generations than the family can count. □

The Shrew

Michael Gadomski

Were it the size of a groundhog, perhaps no wild creature in Virginia would be safe. Yet, though the short-tailed shrew (*Blarina brevicauda*) never exceeds five inches in length, including its stubby tail, it must consume food equal to its weight every few hours or perish from starvation.

The little animal uttering trills, twitters and squeaks will barrel into a foot-long garter snake, as a raccoon does into an ear of corn. Within moments, the ferocious little creature will dispatch the snake and then devour it. Small birds coming within reach of the aggressive animal are attacked at once. A shrew will kill and devour all varieties of mice, and will clean out an entire litter of young ones if it finds the nest.

Biology students, intent on studying the species that inhabits almost every front lawn in the state, are often stunned to find a solitary shrew in the bottom of the cage, upon arrival of morning. They would be willing to swear they had three when they retired for the night. What happened while our prospective biologist was asleep was that two of the tiny battlers 'ganged up' on the other, killed him, then ate him. A few hours later, the pair fought a dual to the death, in which the winner enjoyed a dinner of its former opponent.

During mating season, which can be almost anytime, two males will fight to a finish, and then the female and her new mate will enjoy a "prenuptial" banquet at the expense of the vanquished.

While shrews are numerous, they are seldom seen, although they roam about freely in the daytime as well as at night. While they do not climb, they are everywhere above the surface and beneath, searching for food. Those that see them often confuse the tiny killers for mice. The fur is very soft and mole-like. The form is rather robust, and external ears very reduced—unlike mice. The tail is also small. The upperparts are slate-gray in winter and lighter during summer, with the belly being an ashy gray. The nose is sharp pointed. The tiny animal utters a series of strange sounds, and will stop immediately once a human tries to mimic it, no matter how unreal the imitation.

Shrews prefer dark, damp places which is why they are common on lawns in which there is a fountain or a pool. They also enjoy scurrying around beneath leaf mulch. They follow the tunnels of other animals but will create their own. Their runways can often be found on a lawn at the coming of spring.

The female makes her nest under a rock or in a log, and usually gives birth to four or five offspring. They may or may not make it to maturity—depending upon the food situation outside the lair.

Shrews are preyed upon by hawks, owls, skunks, snakes, and weasels. Housecats will stalk and kill shrews as will terrier dogs, neither of which will devour their prey.

The bite of a shrew is poisonous, the venom of which is sufficient to anesthetize small animals. It has been known to make dogs and cats ill, and does have an effect upon small children. Rest assured that *Blarina* will bite, no matter what the size of its attacker. So a word to the wise—don't play with a cute little gray animal that seems to have no ears, and utters a series of melodious sounds. You could wind up with a very sore hand.

While there are dozens of varieties of shrews in Virginia, they are rarely seen, and little research is done on the species. In 1910, a new variety of pygmy shrew was found in Fairfax County. It averages around three inches in length, and its disposition is no better than its larger cousins. □

by Francis Sculley

Rivers of Opportunity

The Rappahanock and Rapidan rivers can provide the challenge of white water, the excitement of fishing, or the peaceful solitude of a leisurely float.

by John Heerwald

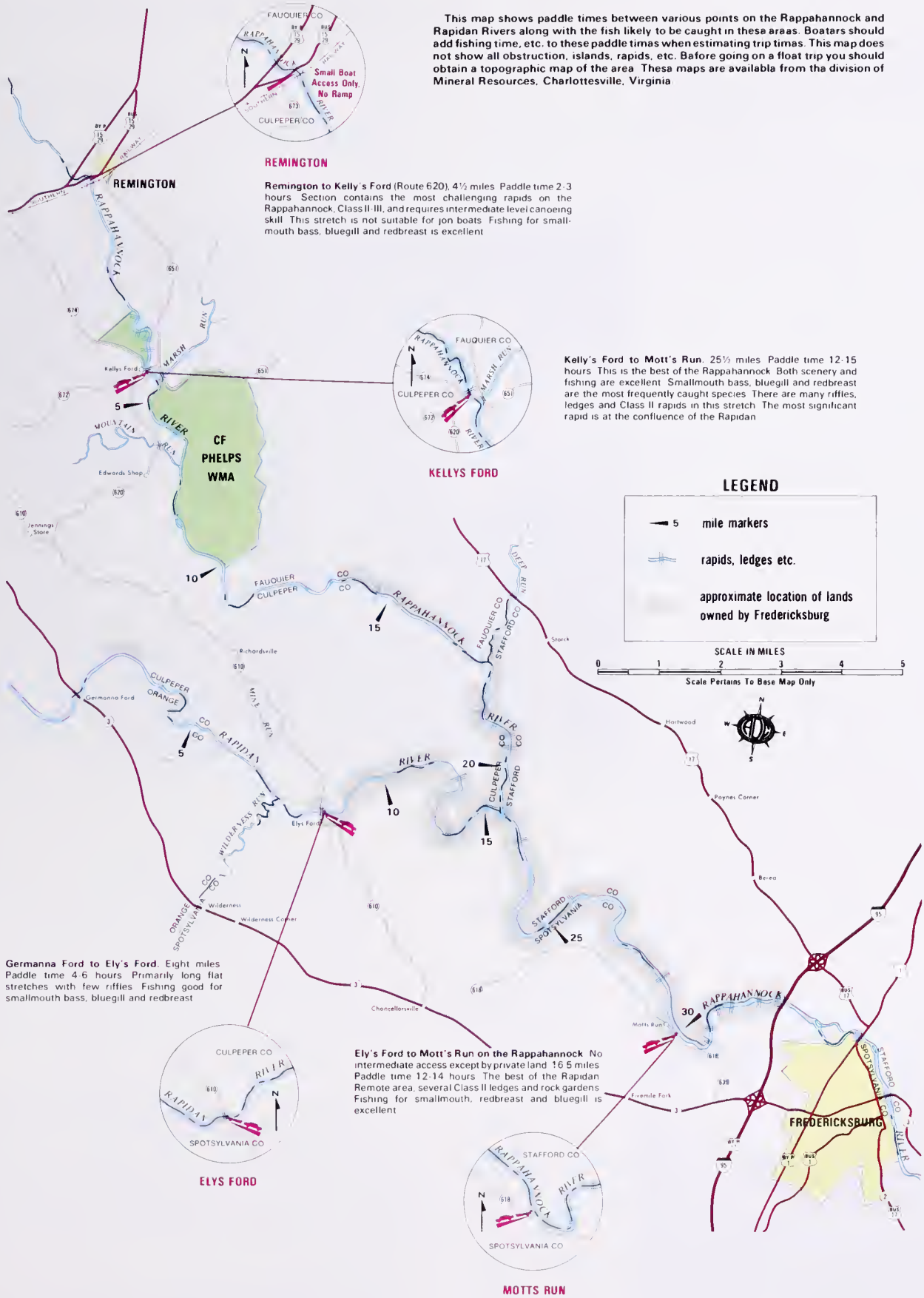
What do Civil War battlefields, citation smallmouth bass, intriguing 19th century navigation works, whitewater canoeing and solitude have in common? If you guessed the Rappahannock and Rapidan Rivers in the northern Virginia piedmont, you are on target. Whether you are looking for a place to hone your whitewater paddling skills, pit your angling ability against the wary and explosive smallmouth, or merely get away to a place of beauty and solitude, either of these two rivers can accomodate you.

The Rappahannock and Rapidan Rivers drain extensive land areas and both hold enough water to allow year-round floating under normal conditions. The numerous riffles, rapids and ledges which characterize these streams dictate the use of a light, maneuverable, shallow-draft boat, such as a canoe or kayak, and some boat handling experience. With the exception of that portion of the Rapidan between Germanna Ford and Ely's Ford, the river sections described in this article should not be attempted by beginners, unless accompanied by someone with intermediate canoeing skills.

A trip on these rivers offers not only excellent fishing and boating in a near-wilderness setting, but a glimpse of Virginia history. During the Colonial period, the Rappahannock and Rapidan served as major avenues of westward exploration and expansion and by the mid-1800's, as arteries of commerce. Today there are many well preserved remnants of the masterful stonework locks and dams which were constructed to improve navigation on the Rappahannock. During the Civil War, the Rappahannock and Rapidan Rivers constituted a significant physical barrier to the north/south movement of troops, and the fords became points of great strategic importance over which numerous skirmishes were fought.

Today knowledgeable freshwater fishermen recognize the Rappahannock and Rapidan Rivers as two of the most productive streams in the Virginia piedmont. Whether you are an accomplished angler or a novice, a float fishing trip down either of these streams could be well worth the effort. In addition to the scrappy redbreast sunfish, you will encouter some the the best smallmouth bass fishing in the Commonwealth. The hard

This map shows paddle times between various points on the Rappahannock and Rapidan Rivers along with the fish likely to be caught in these areas. Boaters should add fishing time, etc. to these paddle times when estimating trip times. This map does not show all obstruction, islands, rapids, etc. Before going on a float trip you should obtain a topographic map of the area. These maps are available from the division of Mineral Resources, Charlottesville, Virginia.



Remington to Kelly's Ford (Route 620), 4½ miles. Paddle time 2-3 hours. Section contains the most challenging rapids on the Rappahannock, Class II-III, and requires intermediate level canoeing skill. This stretch is not suitable for jon boats. Fishing for smallmouth bass, bluegill and redbreast is excellent.

Kelly's Ford to Mott's Run. 25½ miles. Paddle time 12-15 hours. This is the best of the Rappahannock. Both scenery and fishing are excellent. Smallmouth bass, bluegill and redbreast are the most frequently caught species. There are many riffles, ledges and Class II rapids in this stretch. The most significant rapid is at the confluence of the Rapidan.

Germanna Ford to Ely's Ford. Eight miles. Paddle time 4-6 hours. Primarily long flat stretches with few riffles. Fishing good for smallmouth bass, bluegill and redbreast.

Ely's Ford to Mott's Run on the Rappahannock. No intermediate access except by private land. 16.5 miles. Paddle time 12-14 hours. The best of the Rapidan Remote area, several Class II ledges and rock gardens. Fishing for smallmouth, redbreast and bluegill is excellent.

fighting, acrobatic smallmouth can be taken on both live and artificial baits.

If you are floating one of the longer stretches of the Rapphannock or Rapidan which requires overnight camping, come prepared. There are no formal campgrounds along the river. The floodplains of the Rappahannock/Rapidan rivers provide a variety of camping opportunities. However, unless you have made prior arrangements with a private landowner, it is suggested that you confine your streamside activities to those lands owned by the City of Fredericksburg, which are depicted on the accompanying map. Most of the City's property consists of narrow strips of land, 100 to 300 feet wide, along both banks of the river; between Deep Run and Mott's Run on the Rappahannock and Ely's Ford and the confluence with the Rappahannock, on the Rapidan.

Please respect the rights of others by leaving these areas free of litter and fire rings, for if misuse of the City's property becomes a problem, it will be forced to prohibit recreational use in the future. Be sure to leave the area clean and carry out everything you carry in. Buried trash does not remain buried: it is dug up by animals which inhabit the valley.

Depending on the purpose of your trip and your boating skill you can begin your trip on the Rappahannock at the old Route 29 bridge in Remington or at the Game Commission's boating access site on Route 620 at Kelly's Ford. The next public access to the river is at Mott's Run, on Route 618 west of Fredericksburg. The four-and-a-half-mile stretch from Remington to Kelly's Ford can be run several times in a single day. However, Kelly's Ford to Mott's Run is a respectable 25 miles, with no intermediate access points, and requires a minimum of two days to paddle.

Three miles down river from Remington, the first instream ledges and rock outcrops signal the approach of Kelly's Ford rapids. About a third of a mile of continuous Class II rock garden precedes the first real drop, a Class III ledge, the most significant rapid in this stretch. This drop sets the stage for about a mile of whitewater in which the gradient is some 30 feet per mile. The right bank along this stretch of exciting whitewater is bounded by a portion of the state-owned Chester Phelps Wildlife Management Area which provides ideal opportunities for streamside picnicking.

In the vicinity of Kelly's Ford bridge, the river resumes a more leisurely pace. Once this bridge is behind you, there is no more land access until you reach Mott's Run Landing, some 25 miles downstream. This remote stretch of the Rappahannock is one of the most beautiful, historic and unspoiled rivers in the Commonwealth.

Beginning at Marsh Run, just below Kelly's Ford bridge, Phelps WMA borders the left side of the river for approximately five miles. The river in this part consists primarily of long, flat pools, with only an occasional riffle as it drops at a rate of about two or three feet a mile through gently rolling timber and farmland. In the vicinity of mile 12, the character of the river changes noticeably as the surrounding terrain becomes steeper and heavily wooded. The next 18 miles comprise one of the most delightful river environments in the East. The landscape is dominated by steep, rocky bluffs and beautiful bottomland hardwood forests. Islands and riffles make the paddling more interesting. Average drop over this stretch is about seven feet per mile. However, between miles 19 and 22, in the area of the confluence of the Rapidan, the average gradient is 17 feet per mile and riffles and rapids become longer, more frequent and more difficult. Once past the confluence, the gradient returns to a more sedate five feet per mile.

All but doubled in size by the confluence of the Rapidan, the Rappahannock meanders through a wide, deep valley. A majority of the Class II riffles found in this stretch are the result of foundation rubble of the numerous dams which once harnessed this beautiful free-flowing river.

If your choice of rivers is the Rapidan, you will find its most scenic areas between Germanna Ford and the confluence with the Rappahannock. This 15-mile stretch of the Rapidan is accessible in only two places: Germanna Ford on Route 3 (no formal access) and Ely's Ford on Route 610, where off-road parking is available and the water is accessible on foot. It is 19 miles from Ely's Ford to the next access point, Mott's Run on the Rappahannock.

The Rapidan is the largest tributary of the Rappahannock and possesses much the same character of that river, particularly along the lower six miles. Between Germanna and Ely's Ford, the river meanders lazily through piedmont farms and woodlands, dropping an average of only three feet a mile. At mile five, near the mouth of Flat Run, the river enters a more remote, heavily wooded valley and few signs of civilization intrude on the riverscape over the next ten miles.

Ely's Ford to the Rappahannock is the most delightful section of the piedmont Rapidan for canoeists, fishermen and sightseers alike. Just below Ely's Ford, the gradient begins to increase and the paddler will start to encounter occasional Class II ledges and rock gardens. The river drops 12 to 15 feet in the last mile above its confluence with the Rappahnannock. The most significant whitewater on this stretch is a long Class II rock garden that begins about a half mile upstream from, and continuing through, the confluence.

In order to avoid problems and guarantee the safety and enjoyment of your Rappahannock/Rapidan float, adequate trip planning is necessary. The following tips are provided for your planning.

1. Tell someone at home where you are going and when you will be back, so that if you are long overdue, someone will know where to look for you.
2. Be able to recognize the signs of a river in flood stage and do not attempt to canoe a flooded river.
3. Make sure everyone has a personal floatation device.
4. Be prepared for emergencies. Carry a first aid kit, spare paddle, a proper and readily available rescue line, dry clothing, repair kit, bailer and a garbage bag.
5. Respect the rights of private property owners. Always obtain permission before crossing or otherwise using privately-owned property.
6. Never canoe alone. Plan your trip for *at least* two people, preferably more.
7. Don't litter! Carry out what you carry in.
8. Pack as lightly as possible; waterproof everything that you want to keep dry; and tie everything into the boat to avoid loss in the event of an accident.

A map of all state-owned/maintained freshwater boating access sites in Virginia, "Boating Access to Virginia Waters," is available upon request from the Virginia Commission of Game and Inland Fisheries, Education Division, P.O. Box 11104, Richmond, Virginia 23230, at no charge. □

John Heerwald is an outdoor recreation planner for the Virginia Commission of Outdoor Recreation.

Outdoor Notebook

Edited by Mel White

Commission Employees Greet Governor Dalton and Boy Scouts at Jamboree

Francis N. Satterlee

The Game Commission was one of many groups and agencies which helped welcome Boy Scouts from all over the world to the Jamboree at Ft. A.P. Hill near Fredericksburg this summer.

Lt. H.H. Pittman of the Law Enforcement Division set up an exhibit depicting the work of the Game Commission. He was assisted by other members of the Law Enforcement Division as well as the Game, Fish and Education Divisions.

In the photo above, Lt. Pittman, Game Warden Kenneth Dove and Sgt. Bill Parker welcome one of their more famous visitors, Governor John N. Dalton.

Other Game Commission employees who participated in the Jamboree include: Randy Redford, Joe Cooke, Robert Trower, Fred Hottle, Phil Parrish, Dan Lass, Robert Inskeep, Blake Denney, George Shannon, Roger Rowe, Harold Trumbo, E. Steinkoenig, Jim McHugh, Dan Shuber, Charles Sledd, David Ellinghausen, George Goin, Fairfax Settle, John Redd, Mark Shull, Richard Bates, and Bob Eckman.

Print Offer

Here is the first limited edition collector's print by wildlife artist Carl "Spike" Knuth. His original oil painting *Calm Refuge* has been printed on museum quality all-rag paper in an edition limited to 795 prints. The overall print size is 29½" x 24¼" with an image area of 23½" x 18¼". Each print has been inspected, numbered and signed by the artist. Mr Knuth will remarque prints on request. Prices are $65 for prints, $150 for framed prints, $130 for remarqued prints, and $215 for remarqued/framed prints. Please include a shipping charge of $3 for unframed and $7 for framed prints. Virginia residents add 4% sales tax. Order from: Virginia Wild Things, 17531 Beach Road, Chesterfield, Virginia 23832.

Conservation Awards

One outdoor event that's inside, and one that shouldn't be missed, is the annual Virginia Conservation Awards Program. The program and banquet is sponsored by the Virginia Wildlife Federation. This year's program will be at the Holiday Inn, 3200 West Broad Street, Richmond, Virginia. The event begins at 6:00 P.M. on October 17. All tickets to the Conservation Awards Program must be ordered in advance—no tickets will be sold at the door. Tickets are $17.00 each and may be purchased from the Virginia Wildlife Federation, Box 1780, Norfolk, Virginia 23501. Reservations must be received by October 10.

New Location For Big Game Trophy Contest

The Western Regional Big Game Trophy contest will be held in Harrisonburg on Friday and Saturday, October 9 and 10 at the Rockingham County Fairgrounds. The fairgrounds, a new site for the contest, are located on U.S. Route 11, 1.6 miles south of Exit 62 off Interstate 81. Deer, bear and turkey legally killed during the 1980-81 hunting season, west of the Blue Ridge in Virginia, are eligible for Western Regional Awards. Deer and bear winners will be eligible to compete with the Eastern Regional winners in the Virginia State Contest.

Both resident and non-resident sportsmen are eligible to enter their

(continued on page 30)

trophies in the contest. No entry fee or advance entry forms are required, but there is a deadline for entering the contest. Entries must be submitted no later than noon on October 10 to be eligible and must be accompanied by a state Big Game Tag.

There are four classes for deer entries, including one for bowhunters: Class One (9 points or better), Class Two (7 and 8 points), Class Three (6 points or less), and Class Four (archery).

The trophy may be a mounted head or merely a rack of antlers. The antlers must be attached to the skull. Neither the taxidermist's skill nor mounting are considered; only the antlers are scored. The judging and scoring are under the direction of Max Carpenter, a district game biologist for the Virginia Game Commission.

Bear entries are also accepted and scored for the Western Regional and State Contests. For measurements and comparison, only the skull need be submitted.

Turkey Toms legally killed west of the Blue Ridge during the past season will be considered for a Western Regional Award. A combination of measurements of the tail, wing and beard will be the determining factor.

The public is invited to view the trophies on exhibit Friday, 10 a.m. to 10 p.m. and Saturday, 10 a.m. to 9 p.m. There is no admission charge.

As in the past, only the top five winners of the regional contests (Eastern and Western) in each of the classes listed above will be eligible for entry in the state finals. Entrants must have their trophies present at the state finals contest to be considered for placement on the state winners' list. The state contest will be held October 24 at Newport News immediately following the Eastern Regional Contest.

Outdoors in October

Hunting

The sportsman who likes to hunt as well as fish will have a difficult time deciding which sport to follow during the month of October.

Hunters this October will be enjoying dove hunting until the 24th and rail shooting on the tidal marshes throughout the month. Bowhunters will take to the field on the 10th for deer, bear and squirrels and, for the first time, they will also be able to take turkeys in those counties open to fall turkey hunting. Waterfowlers will again have the opportunity to enjoy a short season from October 7 through 10. This early season offers hunters the opportunity to bag local nesting wood ducks and early migrating teal and pintails.

Raccoon hunters will have the entire month to enjoy a chase-only season, the taking of raccoon for any purpose being illegal at this time.

Deer and bear hunters in eastern Virginia, in the vicinity of Dismal Swamp, will be enjoying their traditional early deer and bear hunts this month.

Squirrel hunters will be afield in several counties at different times during the month.

Freshwater Fishing

Freshwater anglers, find October to be an excellent month. Bass fishing for both large and smallmouth bass will continue to improve during the month. Many expert bass anglers find top water baits to be very effective at this time of the year. Lake Anna, dormant for anglers through the summer, is expected to be especially productive in the fall. Smith Mountain Lake should offer some good bass fishing this month as will the tidal streams, such as the lower James, Chickahominy, and the Rappahannock. The creeks that feed into these rivers are often the more productive.

Crappie fishing will be red hot this month. Look to such crappie holes as Lake Chesdin, Buggs Island Lake, Chickahominy Lake and the tidal streams.

Landlocked striped bass will also be contributing to the October catches. The Lake Gaston population can be expected to be in the upper end of the lake, moving into the tail waters below Kerr Dam whenever power is being generated. Buggs Island Lake will offer good striper fishing to those who troll or jig down deep and there will be occasional surface action for stripers, particularly in the late afternoon.

Saltwater Fishing

It's grab bag fishing in salt water. Fish that have summered in Virginia are reinforced by southbound migrants, offering Virginians a wide variety of action to choose from.

Salt water fishing usually remains strong throughout the month, but the quality of the fishing is often dependent upon the weather. A couple of severe storms, particularly late in the month, could send our fish scurrying southward.

Based upon last year's results, we can expect excellent fishing for big bluefish and big trout in the vicinity of Smith Point throughout the month. Most of the big blues will be taken chumming, while jigging will be effective for trout.

Spot, croakers and a few trout should be available in the Rappahannock and the York River. Some striped bass should appear in the catches later in October. This is the time to catch the biggest spot of the season and the prospects this year are great.

Over on the Eastern Shore fishing for gray trout promises to be outstanding. October is also prime time for finding big speckled trout in the creeks that feed into the bay from the Eastern Shore, in Mobjack Bay and possibly in Lynnhaven Inlet.

Excellent trout fishing is expected to hold up throughout the month in the vicinity of the Chesapeake Bay Bridge Tunnel. Wire line trolling will probably continue to be the more effective method for catching these trout.

Look for tautog to turn on around the wrecks towards the end of October. Some sea bass should also appear in the catches.

No Spotlighting

A fall pastime, looking at deer with lights, is no longer legal in Virginia. The old law, which permitted looking at deer with the aid of lights before 10 p.m. has been changed by the General Assembly. Now it is illegal to cast a light upon areas normally inhabited by deer at any time without the permission of the landowner.

Enjoy Virginia Apples

by Joan Cone

In the early 1600's, the Virginia crabapple grew wild in abundance. When the first settlers arrived in America, they brought apple branches from England and grafted them onto crabapple rootstocks. Plantation orchards dotted the countryside, and apples became "big business" in Virginia.

The fall and winter varieties in Virginia include Red Delicious, Golden Delicious, Stayman, Winesap, Rome and York. All are excellent for eating, and only the Red Delicious is not suitable for cooking.

When cooking with apples, use very little water; do not use any water for pies or "Betties." For applesauce add only enough water to prevent apples from scorching. Sliced apples used in salads should be dipped in lemon juice, salt water or ascorbic acid to prevent darkening. Golden Delicious apples stay whiter longer than do other kinds.

These recipes show how versatile apples are: they are used in a main dish, a vegetable casserole and a dessert.

APPLE RAREBIT

12 slices bacon
3 medium apples
¼ cup butter
¼ cup flour
½ teaspoon salt
½ teaspoon Worcestershire sauce
¼ teaspoon dry mustard
¼ teaspoon pepper
1 cup milk
½ cup beer
2 cups shredded cheddar cheese
6 slices toast

Cook bacon until crisp; drain. Peel, core and slice apples ¼-inch thick. Saute in small amount of bacon grease to soften slightly; drain. Melt butter in medium saucepan; blend in flour and spices. Add milk and stir until thickened. Blend in beer and cheese, stirring until cheese melts. Place apple slices on toast and top with bacon and cheese sauce. (Makes 6 servings)

APPLE-CARROT CASSEROLE

2 tablespoons flour
5 tablespoons sugar
5 apples, peeled and thinly sliced
2 cups sliced, cooked carrots
¼ cup butter, divided
¼ cup orange juice

Combine flour and sugar. Place half of apple slices in a shallow 2-quart baking dish; cover with half of carrots. Sprinkle with a small amount of flour mixture and dot with 2 tablespoons butter. Repeat layers and then pour orange juice over all. Bake in a 350° oven for 45 minutes or until tender. (Serves 6 to 8)

DEEP DISH APPLE-DATE PIE

6 tart apples
1 cup pitted dates, sliced
½ cup sugar
½ cup firmly packed brown sugar
½ teaspoon nutmeg
Grated peel from 1 lemon
Grated peel from 1 orange
3 tablespoons butter
Pastry for 1 crust pie

Pare and core apples; cut into eighths. Arrange half the apple slices in baking dish, top with half the dates; repeat. Combine sugars, nutmeg and grated peels; sprinkle over top. Dot with butter. Top with thin sheet of pastry. Cut slits in pastry to allow steam to escape. Bake at 425° about 45 minutes or until apples are soft. Serve warm with plain cream. (Makes 6 servings) □

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On the Waterfront

Edited by James N. Kerrick

Dangers of Visual Distress Signals

As of January 1, 1981 new federal regulations have required that recreational boats operating in coastal waters or the Great Lakes carry approved visual distress signals on board. Although rescue craft may be enroute, there are distinct possibilities that the misuse of VDS's could cause personal injury or even death. Therefore an understanding of these devices is a must in rendering first aid.

What are visual distress signals? VDS's are exactly what their name implies, a visual method of attracting assistance to a distressed vessel. There are several types of VDS's approved for use on recreational boats. When we look at the various types of signals we might not consider the dangers associated with each. Of course, an orange distress flag or an "SOS" light are not killers; but what about the pyrotechnics? Pyrotechnic VDS's can be rocket-propelled, propeller-launched, or hand-held. The propelled devices reach astonishing speeds in relatively short distances. Therefore, besides the danger of burns, there is a the possiblity of a penetrating wound. One type of VDS has a rocket engine fueled by the same compounds that sent astronauts into space. It reaches a top speed of 400 mph in 1.5 seconds, and can reach a verticle height of 1500 feet. These pyrotechnics usually burn magnesium. When burning, magnesium appears as an intense white light, and according to a representative of the Kilgore Corporation (a VDS manufacturer), when burning it heats to a temperature of 2500 to 3000 degrees F.

There are milder forms of pyrotechnic devices, most of which are fueled with milk sugar or lactose along with an oxidizer, normally potassium chlorate. An engineer of Smith and Wesson Chemical Co., Inc. (a VDS manufacturer) says that this particular mixture will burn at 1500 degrees F. He also compared this temperature with that of black powder, which burns at 900 degrees F. These devices may burn for several minutes or more.

An active VDS propelled into the body will cause a serious injury and presents a challenge to the lifesaving ability of those rendering first aid.

This is a serious injury of a unique nature. How is it treated? Will you let the VDS burn itself out or try to extinguish it? Remember, most of these devices carry their own oxidizer so they do not need air to burn. The fire department recommends using sand to put out a magnesium fire; but are you going to pour sand into an open wound? The U.S. Army Soldier's Manual says to treat a wound from a phospherous grenade (a similar device), by picking the burning elements from the body with a bayonet and packing the wound with mud. Our job being of a seagoing nature, these tools are not always readily available. For Coast Guard EMT's and SAR Stations, the best treatments would be to remove the burning elements with forceps and toss them over the side or to place where further injury or hazard is reduced.

You may or may not decide to apply "Silvadene" or "Neosporen," creams used on most common burns. But if either is used, record this to insure that hospital personnel will know who applied it and when. Irrigate the wound with plenty of cool water and cover the wound with a well moistened bandage. Keep the bandage wet by pouring on cool water. *Do not* remove the bandage. Removal would expose the wound to the possibility of further infection.

Of course you must treat all other injuries and always treat for shock. Shock is a state of circulatory deficiency associated with depression of the vital processes of the body. It must be considered and the proper procedure followed for each victim, regardless of the nature or extent of the injuries. Remember that a victim may go into shock hours after he is rescued and given first aid.

Injury-related shock, commonly referred to as traumatic shock, is decidedly different from electrical shock, insulin shock, and other special forms of shock. This section relates to traumatic shock which is a condition resulting in a depressed state of many vital body functions that could threaten life, even though the injuries in themselves might not be fatal.

Evaluation of the situation, according to the extent and severity of the injuries, is more important than any particular sign or symptom. The shock syndrome (set of symptoms which occur together) is variable and the symptoms listed below do not appear in every casualty, nor are they equally noticeable. The following findings are, however, representative of the varied picture which may be presented by the victim in shock:

1. Eyes may be glassy, lackluster, pupils are dilated or suggest fear and apprehension.
2. Breathing may be normal, rapid or labored.
3. The lips may be pale or cyanotic (bluish-gray).
4. The skin temperature may be lowered and the body covered with a clammy sweat.
5. The skin may be very pale or a peculiar ashen gray (if dark complected).
6. The pulse may be nearly normal or it may be rapid, weak, thready, and of poor volume.
7. There may be retching (trying to vomit; heaves), nausea, vomiting, hiccoughs and dryness of the mouth, lips and tongue.
8. Restlessness and apprehension are common signs.

Transport the patient as quickly as possible to a hospital which has a burn treatment center. Do not be surprised if there are more complicating injuries accompanying these types of accidents. Profuse bleeding and eviscerations could complicate treatment.

The best information for stowage and use of "VDS's" is on their labels.

Sources:

Brook Army Hosptial. Burn Unit, Fort Sam Houston, San Antonio, Texas.

Smith and Wesson Chemical Co., Inc. Rock Creek, Ohio

Kilgore Corp., Toone, Tennessee

U.S. Coast Guard Auxiliary Publicaton AUX-206

In Nature's Garden

by Elizabeth Murray

Jimson Weed

In 1676 Nathaniel Bacon, dissatisfied with government corruption and frustrated by its lack of support against hostile Indians, led a rebellion against the Governor of Virginia which culminated in the burning of Jamestown. The first batch of troops sent by Governor Berkeley to put down this uprising never arrived. Snacking *en route* on some roadside weeds, they became the victims of a famous case of mass poisoning.

The roadside weed which they ate was *Datura stramomium*. Known thereafter as "Jamestown weed," now shortened to Jimson weed, it has many other common names, including thornapple, apple of Peru, stinkweed and tolguacha. It belongs to the family which contains perhaps the best known poisonous plants in the world, the Solanaceae, with deadly nightshade, bittersweet, tobacco, horse nettle and Jerusalem cherry. Besides its poisonous members, the family has two redeeming edible plants, the potato and the tomato.

Jimson weed is a big, tough, rank plant that grows up to five feet tall and flourishes in waste places, around abandoned buildings and along roadsides. The alternate leaves are ovate with irregular, acute lobes and toothed margins. Both leaves and stem may be dark, purplish-green. Each flower has a big, trumpet-shaped corolla up to four inches long, with five pointed lobes. The fruit is an oval, spiny capsule. In the fall it splits open along four regular valves to release numerous tiny, black seeds which are hallucinogenic. It is not uncommon to hear reports of people who have suffered severe symptoms, sometimes permanent blindness, after trying the seeds for these hallucinogenic effects.

Most parts of the plant are poisonous. Children have been affected by sucking the nectar from the base of the flowers and stock sometimes eat the foliage (although my cows seem to have the sense to leave it alone). The fruits and seeds continue to be a temptation for the careless.

The symptoms of this kind of poisoning are dramatic: a raging thirst, vision impairment, increased peripheral circulation and eventually, delirium. Dr. Page Booker, the pediatric consultant at the Poison Control Center in Charlottesville, still remembers how his pharmacology professor described *Datura* poisoning. Dr. Waddell told his University of Virginia medical students, "Three classic symptoms: dry as a chip, red as a turkey's wattles and mad as a March hare!"

Datura is distributed throughout the world, particularly in temperate regions. In the U.S., the genus occurs from Florida to Canada and west to California. The species found locally, *Datura stramomium*, blooms in July, August and September, and the spiny seed pods are a familiar sight after all the leaves have fallen, since they stay on the old stems all winter long. The following spring, the plant will sprout again from the roots.

So the next time you stop to admire a stand of Jimson weed, a handsome plant despite its ugly properties, carry this historical speculation with you: if there were no Jimson weed in Virginia, how many seventeenth-century houses in Jamestown might still be standing? □

Lucile Walton

Bird of the Month

by Carl "Spike" Knuth

The Mallard

Even in the foggy overcast of the cold November morning, his head shone a brilliant green. He and his apparent mate had come from the northeast very high. Sitting in our blind, my brother "Rocky" and I were just content to watch the pair as they came high over our decoys. We never dreamed they would suddenly turn and circle down to join our set of "jezebels" sitting motionless on mirror-like water.

Just as they dropped into range they discovered the ruse and began scrambling for altitude, but it was too late. Though we were caught off guard temporarily, our 12-gauges were brought into play and a duck fell. Whether by chance or design, the pair had swerved to our only blind spot, a brushy topped willow. The hen was "screened," but the drake was now climbing out of range. He circled a couple of times before being convinced that he was now alone and headed out over the lake, disappearing into the fog.

No doubt anoyone who has hunted ducks has encountered the mallard. It seems that every duck hunter has his favorite story concerning this beautiful duck and every story is usually full of respect and admiration for the bird. It would have been preferable that the drake be taken and the hen able to escape, but it wasn't that way this day.

Rocky picked up the hen mallard from the shallows where she had dropped. Her violet and blue speculum gleamed, even in the dull light of an overcast day. While the hen is normally considered drab in appearance, we agreed this was not so as we studied the feather patterns of the beautiful creature. Then, gently and gratefully we put it behind the blind and took our places inside to resume our vigil, already satisfied with our bag.

The mallard is the most important and best-known of all ducks and is generally regarded as the most abundant wild duck in the world. The importance of the mallard is magnified by the fact that is domesticates easily and is considered the original stock of most domestic breeds. It is a surface feeding or puddle-duck that "tipples" with its head underwater to feed or feeds right off the surface. It therefore favors shallow ponds, creeks and marshes. Another of its puddle duck characteristics is the ability to push straight off the water when taking off. Mallards are primarily vegetarians, feeding mainly on seeds or sedges, grasses and smartweeds. Other favorite foods are pondweeds, hickory nuts, acorns, corn and other grains. They also consume many types of animal foods including snails, aquatic and terrestrial insects and dead fish.

The adult male mallard is well known for its distinctive green head which, when struck by sunlight, may shine purplish-green or blue-black. Separating its green head from its chestnut-brown chest is a white collar or neck ring. Its white underparts, finely vermiculated with gray, appear silvery. The drake has a greenish-black rump with the characteristic curl on the end. The hen is a combination of browns, tans, buffs and creams with markings of dark brown. Both sexes have similarly colored wings with violet-blue speculums edged in white. Both have orange feet, and the hen an orange bill mottled with black while the drake's bill is a dull yellow.

The mallard's average weight is around two and a half pounds. Because of its size, availability and quality of its flesh, the mallard is a popular duck. Mallards nest over most of the United States and Canada with preference for the prairie potholes of Canada. In some drought years these potholes dry up, forcing mallards into less desirable nesting habitat. Resultant hatches are less successful because of these changes. Wild mallards normally nest in dense reeds or grass close to water but are apt to build anywhere. Some years ago, a hen mallard built her nest atop an old piling along the Milwaukee River in downtown Milwaukee. "Gertie" successfully brought off a small brood amid all the hustle and bustle of a big city. The mallard hen has been known to build a nest of pine needles at the base of a pine tree, and bring off a brood. While truly wild ducks are more dependent on more exacting habitat, it shows how adaptable the mallard is.

Mallards are not especially swift of flight and while they are wary, they do decoy well. They are hunted over decoys, by jump-shooting along rivers, creeks or marshes and over cornfields. The mallard is a prize in the game bag and on the table. □